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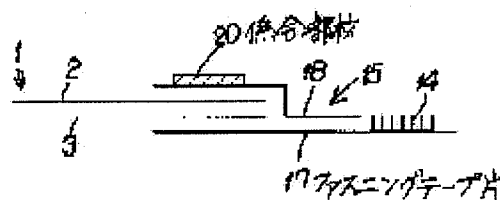
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(54) DISPOSABLE DIAPER AND MANUFACTURE THEREOF

(57)Abstract:

PROBLEM TO BE SOLVED: To strengthen a joint between a diaper body and a fastener tape, and to securely and easily enable the temporary stopping of the folding of a fastener tape.

SOLUTION: A fastener tape 15 fitted to both end parts of the backside waist of a diaper body 1 has a projected part projected from both end parts of the backside waist part. The surface-shaped fastener on one side provided to the belly-side waist part of the diaper body 1 of a liquid permeable surface sheet 2 in the projected part of the fastener tape 15 is provided with a surface-shaped fastener 14 on the other side so as to be detachably engaged. The fastener tape 15 is formed both by a fastening tape piece 17 joined to a liquid impermeable back sheet 3 and by a release tape piece 18 joined to the liquid permeable surface sheet 2. The backside waist part is insertedly joined by adhesive double coated tape pieces 17, 18. The surface-shaped fastener 14 on the other side provided to the projected part of the fastener tape 15 and an engaging member 20 for temporarily stopping and engaging are arranged to the part where they are joined to the liquid permeable surface sheet 2 of the release tape piece 18.



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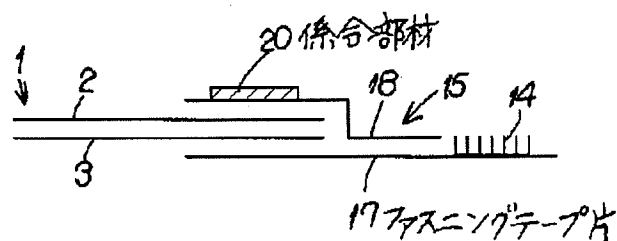
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(54) 【発明の名称】 使い捨ておむつおよびその製造方法

(57) 【要約】

【課題】 おむつ本体とファスナーテープとの結合が強く、ファスナーテープの折り畳み仮止めが確実でかつ容易にできる。

【解決手段】 おむつ本体1の背側腰回り部8の両側端部に取付けたファスナーテープ15は背側腰回り部8の両側端から突出する突出部16を有する。ファスナーテープ15の突出部16において透液性表面シート2におむつ本体1の腹側腰回り部9に設けた一方の面状ファスナー13に係脱自在に係合する他方の面状ファスナー14を設ける。ファスナーテープ15は、不透液性裏面シート3に接着したファスニングテープ片17と透液性表面シート2に接着したリリーステープ片18とにて形成する。両テープ片17, 18とにて背側腰回り部8を挟着して接着する。ファスナーテープ15の突出部16に設けた他方の面状ファスナー14と仮止め係合する係合部材20をリリーステープ片18の透液性表面シート2に接着した部分に配設する。



【特許請求の範囲】

【請求項1】 少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートとを有し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、

このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、

前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、

このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、

前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、

前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナーに係脱自在に係合される係合部材を前記リリーステープ片の前記表面側シートに接着した部分の表面に接着したことを特徴とする使い捨ておむつ。

【請求項2】 少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有しかつ表面側を不織布シートにて形成し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、

このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、

前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、

このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、

前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と前記表面側の不織布シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、

前記ファスナーテープのリリーステープ片の表面には前記表面側の不織布シートに接着した部分に位置して前記他方の面状ファスナーに係脱自在に係合される係合部材を接着し、

前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナーを前記おむつ本体の表面側の不織布シートに係合部材とに仮止め係合可能としたことを特徴とする使い捨ておむつ。

【請求項3】 少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有しかつ表面側を不織布シートにて形成し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、

このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、

前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、

このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、

前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、

このリリーステープ片を前記他方の面状ファスナーと仮止め係合される係合部材にて形成し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態でこのファスナーテープのリリーステープ片を前記他方の面状ファスナーと仮止め係合されることを特徴とする使い捨ておむつ。

【請求項4】 少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有しかつ表面側を不織布シートにて形成し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、

このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、

前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、

このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、

前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、

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前記ファスナーテープのリリーステープ片は前記他方の面状ファスナーと係脱自在に仮止め係合される係合部材にて形成し、

前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナーを前記おむつ本体の表面側の不織布シートと係合部材のリリーステープ片とに仮止め係合可能としたことを特徴とする使い捨ておむつ。

【請求項5】 少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナーまたはこの他方の面状ファスナーおよび不織布にて形成した表面側シートと係脱自在に仮止め係合される係合部材を前記リリーステープ片の前記表面側シートに接着した部分の表面に接着した使い捨ておむつの製造方法であって、

連続して走行しているファスニングテープシートの表面一端側に他方の面状ファスナーシートを接着する工程と、

連続して走行しているリリーステープシートの表面他端側に係合部材シートを接着する工程と、

前記係合部材シートを接着したリリーステープシートの他端側を一端側の表面側に折り返した状態でこのリリーステープシートの一端部を前記他方の面状ファスナーシートを接着したファスニングテープシートの一端側の表面に接着するとともに前記他方の面状ファスナーシートと前記係合部材シートとを仮止め係合する工程と、

前記ファスニングテープシートとこのファスニングテープシートとの一端部を互いに接着したリリーステープシートとを前記他方の面状ファスナーシートと係合部材シートとともに所定の幅で切断して他方の面状ファスナーを接着したファスニングテープ片と係合部材を接着したリリーステープ片とにてファスナーテープを形成する工程と、

前記ファスニングテープ片の他端部分を前記おむつ本体

の背側腰回り部の両端部において前記不透液性裏面シートに接着する工程と、

前記リリーステープ片の他端側折り返し部を他方の面状ファスナーと係合部材が仮止め係合した状態でファスニングテープ片とともに折り曲げて前記表面側シートに接着し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体からの突出部が折り畳まれたファスナーテープを形成する工程とを有することを特徴とする使い捨ておむつの製造方法。

10 【請求項6】 少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナーまたはこの他方の面状ファスナーおよび不織布にて形成した前記表面側シートと係脱自在に仮止め係合される係合部材を前記リリーステープ片の前記表面側シートに接着した部分の表面に接着した使い捨ておむつの製造方法であって、

連続して走行しているファスニングテープシートの表面一端側に他方の面状ファスナーシートを接着する工程と、

前記連続して走行しているファスニングテープシートに

接着されている他方の面状ファスナーシートに係合部材シートを仮止め係合する工程と、

リリーステープシートの一端側を前記ファスニングテープシートの一端部に接着するとともにこのリリーステープシートの折り返し部に前記係合部材シートを接着する工程と、

前記ファスニングテープシートとこのファスニングテープシートとの一端部を互いに接着したリリーステープシートとを前記他方の面状ファスナーシートと係合部材シートとともに所定の幅で切断して他方の面状ファスナーを接着したファスニングテープ片と係合部材を接着したリリーステープ片とにてファスナーテープを形成する工程と、

50 前記ファスニングテープ片の他端部分を前記おむつ本体

の背側腰回り部の両端部において前記不透液性裏面シートに接着する工程と、

前記リリーステープ片の他端側折り返し部を他方の面状ファスナーと係合部材が仮止め係合した状態でファスニングテープ片とともに折り曲げて前記表面側シートに接着し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体からの突出部が折り畳まれたファスナーテープを形成する工程とを有することを特徴とする使い捨ておむつの製造方法。

【請求項7】 少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーまたはこの一方の面状ファスナーおよび不織布にて形成した表面側シートに係脱自在に係合される他方の面状ファスナーとを備え、前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と前記表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態でこのファスナーテープのリリーステープ片を前記他方の面状ファスナーと仮止め係合される係合部材にて形成した使い捨ておむつの製造方法であって、

連続して走行しているファスニングテープシートの表面一端側に他方の面状ファスナーシートを接着する工程と、

連続して走行している前記他方の面状ファスナーシートと仮止め係合される係合部材シート他端側を一端側の表面側に折り返した状態でこの係合部材シートの一端部を前記他方の面状ファスナーシートを接着したファスニングテープシートの一端側の表面に接着するとともに他端部を前記他方の面状ファスナーシートと仮止め係合する工程と、

前記ファスニングテープシートとこのファスニングテープシートとの一端部を互いに接着した係合部材シートとを前記他方の面状ファスナーシートとともに所定の幅で切断して他方の面状ファスナーを接着したファスニングテープ片と係合部材にて形成したリリーステープ片とにてファスナーテープを形成する工程と、

前記ファスニングテープ片の他端部分を前記おむつ本体の背側腰回り部の両端部において前記不透液性裏面シ

トに接着する工程と、

前記リリーステープ片の他端側折り返し部を他方の面状ファスナーと仮止め係合した状態でファスニングテープ片とともに折り曲げて前記表面側シートに接着し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体からの突出部が折り畳まれたファスナーテープを形成する工程とを有することを特徴とする使い捨ておむつの製造方法。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】本発明はファスナーテープを有する乳幼児用、大人用あるいは失禁用などの使い捨ておむつおよびその製造方法に係り、特に、おむつを装着するときに使用するファスナーテープに関する。

【0002】

【従来の技術】従来のこの種の使い捨ておむつは、背側腰回り部、股下回り部および腹側腰回り部を形成したおむつ本体において、腹側腰回り部に設けられた一方の面状ファスナーに背側腰回り部の両端部に設けたファスナーテープの他方の面状ファスナーを係脱自在に係合しておむつ本体を身体に装着するようにした構造が採られている。

【0003】そして、このような使い捨ておむつでは、背側腰回り部の両端部に設けたファスナーテープが背側腰回り部の両端部から突出されたままの状態にしておくと、装着するときに、ファスナーテープに設けられている他方の面状ファスナーがおむつ本体の不織布にて形成した透液性表面シートなどに絡み係着して破損したり、変形したりすることがあり、また、ファスナーテープが突出していると外観性を損なう問題がある。

【0004】また、使い捨ておむつの製造工程においても、おむつ本体の背側腰回り部の両端部からファスナーテープが突出されていると、ファスナーテープに設けた他方の面状ファスナーが不必要におむつ本体の不織布にて形成した透液性表面シートなどに絡み係着して製造ができなくなることがある。

【0005】そこで、従来はファスナーテープのおむつ本体の背側腰回り部の両端部から突出している部分を折り畳むことによりおむつ本体から突出しないようにして、おむつ本体の不織布にて形成した表面側のシートに妄りに絡み係着しないようにして、ファスナーテープの破損、変形を防止し、外観性を良好にして商品性を高め、また、製造工程においても、ファスナーテープが妄りに絡み係着されないようにして、製造が確実にできるようにしている。

【0006】そして、従来は、おむつ本体の背側腰回り部の両端部にファスナーテープのファスニングテープ片とリリーステープ片とを挟着接着し、ファスナーテープの突出部に仮止め用接着剤を塗布し、このファスナーテープの突出部を折り畳んで仮仮止め用接着剤にておむつ

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本体に接着する構造が知られている。

【0007】また、おむつ本体の背側腰回り部において透液性表面シートと不透液性裏面シートとの間にファスナーテープを挟み込み接着し、このファスナーテープの突出部を折り畳んでこの突出部に設けた面状ファスナーをおむつ本体の不織布で形成された透液性表面シートなどの表面側シートに絡み係着させてファスナーテープを仮止する構造が知られている。

【0008】さらに、おむつ本体の背側腰回り部において不透液性裏面シートに接着したファスナーテープの背側腰回り部の両端部からの突出部に面状ファスナーを設け、このファスナーテープの突出部を折り畳んで突出部の面状ファスナーをおむつ本体の不織布で形成された表面側シートに絡み係着させてファスナーテープを仮止する構造が知られている。

【0009】また、従来、ファスナーテープをおむつ本体に取り付けるには、ファスナーテープに面状ファスナーを取り付け、この面状ファスナーが取り付けられたファスナーテープをおむつ本体に接着し、このおむつ本体に接着したファスナーテープのおむつ本体の背側腰回り部からの突出部を折り畳んでこの突出部に設けられている面状ファスナーをおむつ本体の不織布で形成された表面側シートに絡み係着させてファスナーテープを仮止する製造方法が採られている。

【0010】

【発明が解決しようとする課題】上記従来のおむつ本体をファスナーテープのファスニングテープ片とリリーステープ片にて挟着接着し、ファスナーテープの突出部に設けた仮止め用接着剤にてファスナーテープの突出部を折り畳みおむつ本体に仮接着する構造では、ファスナーテープの取り付け強度は高まるが、仮止め接着剤にておむつ本体にファスナーテープの突出部を折り畳み仮接着する構造では、ファスナーテープの係脱を繰り返すと、接着剤の仮止め接着力が低下する問題がある。

【0011】そこで、ファスナーテープにおむつ本体に仮止め接着する接着剤に代えて面状ファスナーを設けた構造とすると、面状ファスナーはリリーステープ片に絡み係着ができないため仮止めができない問題を有している。

【0012】また、おむつ本体の透液性表面シートと不透液性裏面シートとの間にファスナーテープを挟み込み接着し、このファスナーテープの突出部に設けた面状ファスナーをおむつ本体の透液性表面シートに絡み係着させてファスナーテープを仮止する構造、または、おむつ本体の不透液性裏面シートにファスナーテープを接着し、このファスナーテープの突出部を折り畳んで突出部の面状ファスナーをおむつ本体の透液性表面シートに絡み係着させてファスナーテープを仮止する構造では、おむつ本体とファスナーテープとの取り付け強度が弱く、使用時にファスナーテープがおむつ本体を破断して外れ

ることがある問題を有している。

【0013】さらに、上記従来のおむつ本体にファスナーテープを取り付けた後に、ファスナーテープを折り畳んで面状ファスナーをおむつ本体に仮止めする方法では、おむつ本体にファスナーテープを取り付けてからファスナーテープを折り畳んで面状ファスナーを絡み係着しなくてはならず、ファスナーテープの折り畳みが不確実になり易い問題を有している。

【0014】本発明は、上記問題点に鑑みなされたもので、おむつ本体とファスナーテープとの結合が強く、ファスナーテープの折り畳み仮止めが確実でかつ容易にできる使い捨ておむつおよびその製造方法を提供するものである。

【0015】

【課題を解決するための手段】請求項1記載の発明の使い捨ておむつは、少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートとを有し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナーに係脱自在に仮止め係合される係合部材を前記リリーステープ片の前記表面側シートに接着した部分の表面に接着したものである。

【0016】そして、ファスナーテープの不透液性裏面シートに接着されたファスニングテープ片と透液性表面シートなどの表面側シートに接着されたリリーステープ片とによりおむつ本体の背側腰回り部を挟着するので、ファスナーテープとおむつ本体との結合が強固になり、また、ファスナーテープはおむつ本体からの突出部を折り畳んで他方の面状ファスナーを係合部材に絡み係着でき、面状ファスナーが係着できない材質でも確実に仮止め係合でき、ファスナーテープがおむつ本体の背側腰回り部の両側端部から突出しない状態に確実に保持できる。

【0017】請求項2記載の発明の使い捨ておむつは、少なくとも吸収体を間に配設した透液性表面シートと不

透液性裏面シートを有しかつ表面側を不織布シートにて形成し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と前記表面側の不織布シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、前記ファスナーテープのリリーステープ片の表面には前記表面側の不織布シートに接着した部分に位置して前記他方の面状ファスナーに係脱自在に仮止め係合される係合部材を接着し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナーを前記おむつ本体の表面側の不織布シートと係合部材とに仮止め係合可能としたものである。

【0018】そして、ファスナーテープの不透液性裏面シートに接着されたファスニングテープ片と表面側の不織布シートに接着されたリリーステープ片とによりおむつ本体の背側腰回り部を挟着するので、ファスナーテープとおむつ本体との結合が強固になり、また、ファスナーテープはおむつ本体からの突出部を折り畳んで他方の面状ファスナーに係合部材とおむつ本体の表面側の不織布シートとに絡み係着でき、面状ファスナーが係着できない材質でも確実に仮止め係合でき、この他方の面状ファスナーは係合部材とおむつ本体の表面側の不織布シートとに絡み係着されるため、ファスナーテープがおむつ本体の背側腰回り部の両側端部から突出しない状態に確実に保持できる。

【0019】請求項3記載の発明の使い捨ておむつは、少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有しかつ表面側を不織布シートにて形成し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、前記ファスナーテープは、前記おむつ本体の不透

液性裏面シートに接着されたファスニングテープ片と表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、このリリーステープ片を前記他方の面状ファスナーと仮止め係合される係合部材にて形成し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態でこのファスナーテープのリリーステープ片を前記他方の面状ファスナーと仮止め係合されるものである。

【0020】そして、ファスナーテープの不透液性裏面シートに接着されたファスニングテープ片と透液性表面シートに接着されたリリーステープ片とによりおむつ本体の背側腰回り部を挟着するので、ファスナーテープとおむつ本体との結合が強固になり、また、ファスナーテープのおむつ本体からの突出部を折り畳んで他方の面状ファスナーに係合部材にて形成したリリーステープ片に絡み係着でき、係合部材にてリリーステープ片を形成したため、リリーステープ片に係合部材を接着する必要がなく、他方の面状ファスナーをリリーステープ片に確実に仮止め係合でき、ファスナーテープがおむつ本体の背側腰回り部の両側端部から突出しない状態に確実に保持できる。

【0021】請求項4記載の発明の使い捨ておむつは、少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有しかつ表面側を不織布シートにて形成し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、前記ファスナーテープのリリーステープ片は前記他方の面状ファスナーと係脱自在に仮止め係合される係合部材にて形成し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナーを前記おむつ本体の表面側の不織布シートと係合部材のリリーステープ片とに仮止め係合可能としたものである。

【0022】そして、ファスナーテープの不透液性裏面

シートに接着されたファスニングテープ片と表面側の不織布シートに接着されたリリーステープ片とによりおむつ本体の背側腰回り部を挟着するので、ファスナーテープとおむつ本体との結合が強固になり、また、ファスナーテープはおむつ本体からの突出部を折り畳んで他方の面状ファスナーを係合部材にて形成したリリーステープ片とおむつ本体の表面側の不織布のシートとに絡み係着でき、係合部材にてリリーステープ片を形成したため、リリーステープ片に係合部材を接着する必要がなく、他方の面状ファスナーはリリーステープ片とおむつ本体の表面側の不織布シートとに絡み係着されるため、ファスナーテープがおむつ本体の背側腰回り部の両側端部から突出しない状態に確実に保持できる。

【0023】請求項5記載の発明の使い捨ておむつの製造方法は、少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナーまたはこの他方の面状ファスナーおよび表面側の不織布シートと係脱自在に仮止め係合される係合部材を前記リリーステープ片の前記表面側のシートに接着した部分の表面に接着した使い捨ておむつの製造方法である。

【0024】この使い捨ておむつの製造方法は、連続して走行しているファスニングテープシートの表面一端側に他方の面状ファスナーシートを接着する工程と、連続して走行しているリリーステープシートの表面他端側に係合部材シートを接着する工程と、前記係合部材シートを接着したリリーステープシートの他端側を一端側の表面側に折り返した状態でこのリリーステープシートの一端部を前記他方の面状ファスナーシートを接着したファスニングテープシートの一端側の表面に接着するとともに前記他方の面状ファスナーシートと前記係合部材シートとを仮止め係合する工程と、前記ファスニングテープシートとこのファスニングテープシートとの一端部を互いに接着したリリーステープシートとを前記他方の面状

ファスナーシートと係合部材シートとともに所定の幅で切断して他方の面状ファスナーを接着したファスニングテープ片と係合部材を接着したリリーステープ片とにてファスナーテープを形成する工程と、前記ファスニングテープ片の他端部分を前記おむつ本体の背側腰回り部の両側端部において前記不透液性裏面シートに接着する工程と、前記リリーステープ片の他端側折り返し部を他方の面状ファスナーと係合部材が仮止め係合した状態でファスニングテープ片とともに折り曲げて前記表面側シートに接着し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体からの突出部が折り畳まれたファスナーテープを形成する工程とを有するものである。

【0025】そして、ファスナーテープはおむつ本体に取付けた状態でファスナーテープのリリーステープ片の係合部材またはこの係合部材および表面側の不織布シートと他方の面状ファスナーが絡み仮止め係合状態にあり、ファスナーテープをおむつ本体に取付けた状態でリリーステープ片の係合部材またはこの係合部材および表面側の不織布シートと他方の面状ファスナーとが絡んだ仮止め係合状態となり、ファスナーテープは容易でかつ確実に突出部をおむつ本体に折り畳んで接着できる。

【0026】請求項6記載の発明の使い捨ておむつの製造方法は、少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーに係脱自在に係合される他方の面状ファスナーとを備え、前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナーまたはこの他方の面状ファスナーおよび不織布にて形成した前記表面側シートと係脱自在に仮止め係合される係合部材を前記リリーステープ片の前記表面側シートに接着した部分の表面に接着した使い捨ておむつの製造方法である。

【0027】この使い捨ておむつの製造方法は、連続して走行しているファスニングテープシートの表面一端側に他方の面状ファスナーシートを接着する工程と、前記連続して走行しているファスニングテープシートに接着されている他方の面状ファスナーシートに係合部材シ

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トを仮止め係合する工程と、リリーステープシートの一端側を前記ファスニングテープシートの一端部に接着するとともにこのリリーステープシートの折り返し部に前記係合部材シートを接着する工程と、前記ファスニングテープシートとこのファスニングテープシートとの一端部を互いに接着したリリーステープシートとを前記他方の面状ファスナーシートと係合部材シートとともに所定の幅で切断して他方の面状ファスナーを接着したファスニングテープ片と係合部材を接着したリリーステープ片とにてファスナーテープを形成する工程と、前記ファスニングテープ片の他端部分を前記おむつ本体の背側腰回り部の両端部において前記不透液性裏面シートに接着する工程と、前記リリーステープ片の他端側折り返し部を他方の面状ファスナーと係合部材が仮止め係合した状態でファスニングテープ片とともに折り曲げて前記表面側シートに接着し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体からの突出部が折り畳まれたファスナーテープを形成する工程とを有するものである。

【0028】そして、ファスナーテープはおむつ本体に取付けることによりファスナーテープのリリーステープ片の係合部材またはこの係合部材および表面側の不織布シートと他方の面状ファスナーが絡み係着状態にあり、ファスナーテープをおむつ本体に取付けた状態でリリーステープ片の係合部材またはこの係合部材および不織布にて形成した透液性表面シートと他方の面状ファスナーとが絡んだ仮止め係合状態となり、ファスナーテープは容易でかつ確実に突出部をおむつ本体に折り畳んで、ファスナーテープがおむつ本体の背側腰回り部の両側端部から突出しない状態に確実に保持できる。

【0029】また、ファスナーテープのリリーステープ片とファスニングテープ片との接着とリリーステープ片と係合部材との接着が同時にでき、製造が容易となる。

【0030】請求項7記載の発明の使い捨ておむつの製造方法は、少なくとも吸収体を間に配設した透液性表面シートと不透液性裏面シートを有し背側腰回り部、股下回り部および腹側腰回り部を連続して形成したおむつ本体と、このおむつ本体の腹側腰回り部の不透液性裏面シートに設けた一方の面状ファスナーと、前記おむつ本体の背側腰回り部の両側端部にそれぞれ取付けられこの背側腰回り部の両側端から突出する突出部を有するファスナーテープと、このファスナーテープのおむつ本体からの突出部の表面に設けられ前記おむつ本体の腹側腰回り部に設けた一方の面状ファスナーまたはこの一方の面状ファスナーおよび不織布にて形成した表面側シートに係脱自在に係合される他方の面状ファスナーとを備え、前記ファスナーテープは、前記おむつ本体の不透液性裏面シートに接着されたファスニングテープ片と前記表面側シートに接着されたリリーステープ片とにて形成し、このファスニングテープ片とリリーステープ片とにて前記

おむつ本体の背側腰回り部の両側端部を挟着するとともにこの背側腰回り部の両側端部からの突出部を互いに接着し、前記ファスナーテープの突出部を表面側に折り曲げて重ね合わせた状態でこのファスナーテープのリリーステープ片を前記他方の面状ファスナーと仮止め係合される係合部材にて形成した使い捨ておむつの製造方法である。

【0031】この使い捨ておむつの製造方法は、連続して走行しているファスニングテープシートの表面一端側に他方の面状ファスナーシートを接着する工程と、連続して走行している前記他方の面状ファスナーシートと仮止め係合される係合部材シートの他端側を一端側の表面側に折り返した状態でこの係合部材シートの一端部を前記他方の面状ファスナーシートを接着したファスニングテープシートの一端側の表面に接着するとともに他端部を前記他方の面状ファスナーシートと仮止め係合する工程と、前記ファスニングテープシートとこのファスニングテープシートとの一端部を互いに接着した係合部材シートとを前記他方の面状ファスナーシートとともに所定の幅で切断して他方の面状ファスナーを接着したファスニングテープ片と係合部材にて形成したリリーステープ片とにてファスナーテープを形成する工程と、前記ファスニングテープ片の他端部分を前記おむつ本体の背側腰回り部の両端部において前記不透液性裏面シートに接着する工程と、前記リリーステープ片の他端側折り返し部を他方の面状ファスナーと仮止め係合した状態でファスニングテープ片とともに折り曲げて前記表面側シートに接着し、このファスニングテープ片とリリーステープ片とにて前記おむつ本体からの突出部が折り畳まれたファスナーテープを形成する工程とを有するものである。

【0032】そして、ファスナーテープはおむつ本体に取付けることによりファスナーテープのリリーステープ片に他方の面状ファスナーが絡み係着状態にあり、ファスナーテープをおむつ本体に取付けた状態でリリーステープ片と他方の面状ファスナーとが絡んだ仮止め係合状態となり、ファスナーテープは容易でかつ確実に突出部をおむつ本体に折り畳んで、ファスナーテープがおむつ本体の背側腰回り部の両側端部から突出しない状態に確実に保持できる。

【0033】また、ファスナーテープのリリーステープ片に係合部材を接着する工程を必要とせず、製造が容易となる。

【0034】

【発明の実施の形態】次に、本発明の使い捨ておむつの実施の一形態の構成を図1ないし図3を参照して説明する。

【0035】図1ないし図3において、1はおむつ本体で、このおむつ本体1は、液透過性を有する透液性表面シート2と、液不透過性を有する不透液性裏面シート3との間に液吸収性を有する吸収体4を配設し、このおむ

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つ本体1は、展開状態で略細長状で長手方向の中央部を中心として略対称の形状に形成するとともに、幅方向の中央部を中心として左右対称の形状に形成されている。

【0036】そして、前記おむつ本体1の透液性表面シート2と不透液性裏面シート3は、長手方向の中間部が幅狭状となるように内方に向けて略凹弧状に切り欠かれた凹弧状縁1aが形成され、また、前記吸収体4も長手方向の中間部が幅狭状となるように内方に向けて略凹弧状に切り欠かれた凹弧状縁4aが形成されている。

【0037】また、前記透液性表面シート2は、尿などの排泄生理液を前記吸収体4へ透過させるために液透過性を有し、例えば、綿布、不織布、多孔性フィルム、合成繊維などにて形成されている。

【0038】また、前記不透液性裏面シート3は、下着などの他の衣類、或いはシートなどを汚損することがないように液不透過性を有し、例えばポリエチレン樹脂などの合成樹脂シートなどにて成形され、周縁部が前記透液性表面シート2の周縁部に接着されている。

【0039】また、前記吸収体4は略細長矩形形状に成型され、前記透液性表面シート2と不透液性裏面シート3との間にこの透液性表面シート2と不透液性裏面シート3の凹弧状縁1aに対向して長手方向の中間部の凹弧状縁4aが位置するように配設されており、この吸収体4は、尿などの排泄生理液を吸収できる、例えばパルプを主材料として一部に高分子吸収体等の物質を含んだ材料にて成形されている。

【0040】そして、前記吸収体4の外側に位置して前記透液性表面シート2と前記不透液性裏面シート3とにてフラップ部5が形成されている。

【0041】さらに、前記おむつ本体1の透液性表面シート2の表面の左右には、前記フラップ部5から中間部まで尿などの排泄生理液を浸透しない性質を有する、例えばポリプロピレン樹脂などの不透液性材料にて形成した疎水性シート6が重合され、この左右の疎水性シート6の内側縁部間には透液性表面シート2の中央部が露出されている。そして、この疎水性シート6は、透液性表面シート2に合わせて長手方向の中間部の外側縁が内方に向って略凹弧状に切り欠かれた略細長矩形形状に形成され、この疎水性シート6の下面の外側縁部が前記透液性表面シート2の周縁部に接着されている。

【0042】次に、前記おむつ本体1は、図3に示す展開状態から折り曲げられて身体に装着されるもので、展開状態における長手方向の中間部の股下に位置する股下回り部7とこの股下回り部7の長手方向の一端側には身体への装着時に背中側に位置する背側腰回り部8が一体に形成され、かつ前記股下回り部7の長手方向の他端側には腹側に位置する腹側腰回り部9が一体に形成されている。

【0043】また、前記股下回り部7の両側中央部に幅方向の両側縁の凹弧状縁1aに沿った脚回り部10が形成さ

れている。この脚回り部10には1本または複数のゴムなどで形成された略紐状のフラップ弾性体11が前記おむつ本体1の長手方向に沿って前記透液性表面シート2と前記不透液性裏面シート3との間に配設され、このフラップ弾性体11により前記吸収体4の両側部のフラップ部5にて脚回りギャザー部12が形成されている。

【0044】そして、前記不透液性裏面シート3の腹側腰回り部9の略中央部に受けフック形の一方の面状ファスナー13が接着または縫着などで取り付けられている。

【0045】また、前記透液性表面シート2の背側腰回り部8の幅方向の両端部には、前記一方の面状ファスナー13に係脱自在に係合する鉤状の係止フック形の他方の面状ファスナー14を接着したファスナーテープ15が取着されている。

【0046】前記ファスナーテープ15は前記背側腰回り部の両側端から突出する突出部16を有し、このファスナーテープ15の突出部16において前記透液性表面シート2側の面と同一面側となる表面の一端部に前記他方の面状ファスナー14が接着されている。

【0047】そして、前記一端部に前記他方の面状ファスナー14が接着されているファスナーテープ15は、前記不透液性裏面シート3に他端部が接着されたファスニングテープ片17と前記透液性表面シート2に他端部が接着されたリリーステープ片18とにて形成され、前記ファスニングテープ片17の他端部とリリーステープ片18の他端部とにて前記おむつ本体1の背側腰回り部8を外面側から挟着するとともにこの背側腰回り部8からの突出部16となる一端部を互いに接着している。

【0048】また、前記ファスナーテープ15の突出部16に設けた前記他方の面状ファスナー14が絡み仮止め係合可能な受けフック形の面状ファスナーまたは不織布などの係合部材20を前記リリーステープ片18の他端部の前記透液性表面シート2に接着した部分の表面に接着などにより接着されている。

【0049】このリリーステープ片18は前記ファスニングテープ片17より短く、ファスニングテープ片17の一端部はリリーステープ片18の一端部より突出され、このファスニングテープ片17のリリーステープ片18の一端部より突出した部分の表面に前記係合部材20が接着され、さらに、このファスニングテープ片17の係合部材20を接着した部分より突出する一端部の表面には摘みシート片21が接着されている。

【0050】そして、図2に示すように、前記ファスナーテープ15の突出部16をおむつ本体1の背側腰回り部8の両側縁部よりおむつ本体1の表面側に折り返し重ね合せ、このファスナーテープ15に接着した他方の面状ファスナー14を係合部材20に係脱自在に仮止め係合することにより、このファスナーテープ15がおむつ本体1の表面側に折り重っておむつ本体1の背側腰回り部8の両側縁部より突出しない状態に保持される。

【0051】次に、上記一実施の形態の作用について説明する。

【0052】おむつ本体1を身体に装着するときには、図2に示すように、おむつ本体1に取り付けたファスナーテープ15はおむつ本体1からの突出部16が折り畳まれて他方の面状ファスナー14が係合部材20に絡み係着されて仮止め係合されている。

【0053】使用に際しては、他方の面状ファスナー14と係合部材20との仮止め係合を解いてファスナーテープ15を折り返し、背側腰回り部8の両端部からファスナーテープ15の突出部16をそれぞれ突出させる。

【0054】そして、おむつ本体1の透液性表面シート2側の表面が肌に接触されるようにして、おむつ本体1の股下回り部7を股下に位置させるとともに背側腰回り部8を背中側に位置させ、さらに、腹側腰回り部9を腹側に位置させる。このおむつ本体1の背側腰回り部8に固着されている一方の面状ファスナー13に背側腰回り部9に取り付けられているファスナーテープ15の他方の面状ファスナー14をそれぞれ係脱自在に係合させて装着する。

【0055】このとき、ファスナーテープ15の不透液性裏面シート3に接着されたファスニングテープ片17と透液性表面シート2に接着されたリリーステープ片18とによりおむつ本体1の背側腰回り部8を挟着するので、ファスナーテープ15とおむつ本体1との結合が強固になり、また、ファスナーテープ15は他方の面状ファスナー14をおむつ本体1からの突出部16を折り畳んで他方の面状ファスナー14を係合部材20に絡み係着して仮止め係合でき、ファスナーテープ15が他方の面状ファスナー14に係着できない材質でも確実に仮止めできる。

【0056】そして、ファスナーテープ15はおむつ本体1を身体に装着するまでは、折り畳まれて背側腰回り部8から突出していないので、ファスナーテープ15に設けられている他方の面状ファスナー14がおむつ本体1の不織布にて形成した透液性表面シート2などに絡み係着して破損したり、変形したりすることがなく、また、ファスナーテープ15がおむつ本体1から突出していないので外観性を損なうことがない。

【0057】また、使い捨ておむつの製造工程においても、おむつ本体1の背側腰回り部8の両端部からファスナーテープ15が突出されていないので、ファスナーテープ15に設けた他方の面状ファスナー14が不必要におむつ本体1の不織布にて形成した透液性表面シート2に絡み係合することによる製造上の不都合が生じることがない。

【0058】なお、前記実施の形態では、ファスナーテープ15のリリーステープ片18はおむつ本体1の透液性表面シート2に接着した構造について説明したが、おむつ本体1が透液性表面シート2の幅方向の両側部に疎水性シートなど表面側シートを配設した構造では、リリース

テープ片18を疎水性シートなどの表面側シートに接着することもできる。

【0059】次に他の実施の形態を図4および図5に基づいて説明する。

【0060】前記図1ないし図3に示す実施の形態の構成において、前記ファスナーテープ15の突出部16をおむつ本体1の背側腰回り部8の両側縁部よりおむつ本体1の表面側に折り返し重ね合せ、このファスナーテープ15に接着した他方の面状ファスナー14を係合部材20と、さらに、不織布にて形成したおむつ本体1の透液性表面シート2とに係脱自在に仮止め係合することにより、このファスナーテープ15がおむつ本体1の表面側に折り重っておむつ本体1の背側腰回り部8の両側縁部より突出しない状態に保持される構成である。

【0061】この実施の形態の構成は、おむつ本体1は吸収体4を間に配設した不織布にて形成した透液性表面シート2と不透液性裏面シート3にて背側腰回り部8、股下回り部7および腹側腰回り部9が連続して形成されている。

【0062】また、このおむつ本体1の腹側腰回り部9の不透液性裏面シート3に受けフック形の一方の面状ファスナー13が設けられ、また、前記おむつ本体1の背側腰回り部8の両側端部にそれぞれこの背側腰回り部8の両側端から突出する突出部16を有するファスナーテープ15が設けられている。

【0063】このファスナーテープ15のおむつ本体1からの突出部16の表面に前記おむつ本体1の腹側腰回り部9に設けた一方の面状ファスナー13に係脱自在に係合される鉤状の係止フック形の他方の面状ファスナー14が接着されている。

【0064】また、前記ファスナーテープ15は、前記おむつ本体1の不透液性裏面シート3に接着されたファスニングテープ片17と前記透液性表面シート2に接着されたリリーステープ片18とにて形成し、このファスニングテープ片17とリリーステープ片18とにて前記おむつ本体1の背側腰回り部8の両側端部を挟着するとともにこの背側腰回り部8の両側端部からの突出部16を互いに接着し、前記ファスナーテープ15のリリーステープ片18の表面には前記透液性表面シート2に接着した部分に位置して前記他方の面状ファスナー14と係脱自在に仮止め係合可能な受けフック形の面状ファスナーまたは不織布などの係合部材20を接着し、前記ファスナーテープ15の突出部16を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナー14を前記おむつ本体1の不織布の透液性表面シート2と係合部材20とに仮止め係合可能としたものである。

【0065】さらに、前記ファスナーテープ15のリリーステープ片18の表面には前記他方の面状ファスナー14の先端部となる一端部に摘みシート片21を接着する。

【0066】すなわち、この図4および図5に示す実施

の形態の構成は、前記図1および図2に示す構成において、ファスナーテープ15の突出部16を表面側に折り曲げて重ね合わせた状態で他方の面状ファスナー14を前記おむつ本体1の不織布の透液性表面シート2と係合部材20とに仮止め係合可能となっており、他の構成は図1および図2に示す構成と同一である。

【0067】次に、この実施の形態の作用を説明する。

【0068】この実施の形態でも、ファスナーテープ15の不透液性裏面シート3に接着されたファスニングテープ片17と透液性表面シート2に接着されたリリーステープ片18とによりおむつ本体1の背側腰回り部8を挟着し、ファスナーテープ15とおむつ本体1との結合が強固になり、また、ファスナーテープ15はおむつ本体1からの突出部16を折り畳んで他方の面状ファスナー14を係合部材20とおむつ本体1の不織布の透液性表面シート2とに仮止め係合ができ、この他方の面状ファスナー14は係合部材20とおむつ本体1の不織布の透液性表面シート2とに絡み仮止め係合されるため、ファスナーテープ15がおむつ本体1の背側腰回り部8の両側端部から突出しない状態に確実に保持できる。

【0069】この実施の形態の他の作用は前記図1ないし図3に示す実施の形態と同一である。

【0070】なお、前記実施の形態では、ファスナーテープ15のリリーステープ片18はおむつ本体1の不織布にて形成された透液性表面シート2に接着した構造について説明したが、おむつ本体1が透液性表面シート2の幅方向の両側部に疎水性シートなど不織布にて形成された表面側シートを配設した構造では、リリーステープ片18を疎水性シートなどの表面側の不織布にて形成したシートに接着し、ファスナーテープ15に接着した他方の面状ファスナー14を係合部材20と不織布にて形成したおむつ本体1の表面側の不織布シートとに係脱自在に仮止め係合することもできる。

【0071】次に図1と図2および図4と図5に示す使い捨ておむつの製造方法を図6に基づいて説明する。

【0072】この製造方法は、図3に示す透液性表面シート2、不透液性裏面シート3およびこの透液性表面シート2と不透液性裏面シート3との間に配設された吸収体4を有し背側腰回り部8、股下回り部7および腹側腰回り部9を形成したおむつ本体1に前記図1および図2と、図4および図5とに示す実施の形態のファスナーテープ15を取り付けて使い捨ておむつを製造するものである。

【0073】図6の(a)に示す連続して走行しているファスニングテープシート31の表面の一端側に鉤状の係止フック形の他方の面状ファスナーシート32と摘みシート33を接着する(工程b)と、連続して走行しているリリーステープシート34の表面他端側に係合部材シート35を接着する工程とに引き続いて、前記係合部材シート35を接着したリリーステープシート34の他端側を一端側の表

面側に折り返した状態でこのリリーステープシート34の一端部を前記他方の面状ファスナーシート32を接着したファスニングテープシート31の一端側の表面に接着するとともに前記他方の面状ファスナーシート32と前記係合部材シート35とを仮止め係合する(工程c)。

【0074】次いで、前記ファスニングテープシート31とこのファスニングテープシート31との一端部を互いに接着したリリーステープシート34とを前記他方の面状ファスナーシート32と係合部材シート35とともに所定の幅で切断し、他方の面状ファスナー14と摘みシート片21を接着したファスニングテープ片17と係合部材20を接着したリリーステープ片18とにてファスナーテープ15を形成する(工程d)。

【0075】さらに、前記ファスニングテープ片17の他端部分を図3に示す前記おむつ本体1の背側腰回り部8の両端部において前記不透液性裏面シート3に接着した工程に次いで前記リリーステープ片18の他端側折り返し部を他方の面状ファスナー14と係合部材20が仮止め係合した状態でファスニングテープ片17とともに折り曲げて前記透液性表面シート2に接着し、このファスニングテープ片17とリリーステープ片18とにて前記おむつ本体1からの突出部16が折り畳まれたファスナーテープ15を形成する(工程e)。

【0076】なお、前記図4および図5に示す実施の形態の使い捨ておむつでは、ファスニングテープ片17の他端部分を図3に示す前記おむつ本体1の背側腰回り部8の両端部において前記不透液性裏面シート3に接着するとともに前記リリーステープ片18の他端側折り返し部を他方の面状ファスナー14と係合部材20が仮止め係合した状態で、ファスニングテープ片17とともに折り曲げて前記透液性表面シート2に接着したとき、他方の面状ファスナー14または係合部材20が仮止め係合した状態でおむつ本体1の透液性表面シート2に絡み仮止め係合される。

【0077】次にこの実施の形態の作用を説明する。

【0078】ファスニングテープ片17の他端部分を図3に示す前記おむつ本体1の背側腰回り部8の両端部において不透液性裏面シート3に接着してからリリーステープ片18の他端側折り返し部を他方の面状ファスナー14と係合部材20が仮止め係合した状態でファスニングテープ片17とともに折り曲げて前記透液性表面シート2に接着するので、図2および図5に示すように、ファスナーテープ15はおむつ本体1に取付けた状態でファスナーテープ15のリリーステープ片18の係合部材20またはこの係合部材20および不織布にて形成した透液性表面シート2とに他方の面状ファスナー14が絡み仮止め結合状態にあり、ファスナーテープ15は容易にかつ確実に突出部16をおむつ本体1に折り畳んで接着できる。

【0079】なお、おむつ本体1の透液性表面シート2の幅方向の両側部に不織布にて形成した疎水性シートな

ど表面側の不織布シートを配設した構成では、ファスナーテープ15のリリーステープ片18は表面側の不織布シートに接着する。

【0080】次に使い捨ておむつの製造方法の他の実施の形態を図6に基づいて説明する。

【0081】この実施の形態も、図1と図2および図4と図5に示す使い捨ておむつの製造に関するもので、図6の(a)に示す連続して走行しているファスニングテープシート31の表面一端側に鉤状の係止フック形の他方の面状ファスナーシート32を接着する(工程b)。次いで、前記連続して走行しているファスニングテープシート31に接着されている他方の面状ファスナーシート32に係合部材シート35を仮止め係合する(工程f)。

【0082】次に、リリーステープシート34の一端側を前記ファスニングテープシート31の一端部に接着するとともにこのリリーステープシート34の折り返し部に前記他方の面状ファスナーシート32と仮止め係合されている係合部材シートを接着する(工程g)。さらに、前記ファスニングテープシート31とこのファスニングテープシート31との一端部を互いに接着したリリーステープシート34とを前記他方の面状ファスナーシート32と係合部材シート35とともに所定の幅で切断して他方の面状ファスナー14を接着したファスニングテープ片17と係合部材20を接着したリリーステープ片18とにてファスナーテープ15を形成する(工程d)。

【0083】次に、前記ファスニングテープ片17の他端部分を図3に示す前記おむつ本体1の背側腰回り部8の両端部において前記不透液性裏面シート3に接着するとともに、前記リリーステープ片18の他端側折り返し部を他方の面状ファスナー14と係合部材20が仮止め係合した状態でファスニングテープ片17とともに折り曲げて前記おむつ本体1の透液性表面シート2に接着し、このファスニングテープ片17とリリーステープ片18とにて前記おむつ本体1からの突出部16が折り畳まれたファスナーテープ15を形成する(工程e)。

【0084】この実施の形態の作用を説明する。

【0085】ファスナーテープ15はおむつ本体1に取付けるときに、ファスナーテープ15のリリーステープ片18の係合部材20またはこの係合部材20および不織布にて形成した透液性表面シート2と他方の面状ファスナー14が絡み仮止め係合状態にあり、ファスナーテープ15は容易でかつ確実に突出部16をおむつ本体1に折り畳んで、ファスナーテープ15がおむつ本体の背側腰回り部の両側端部から突出しない状態に確実に保持できる。

【0086】また、リリーステープシート34の一端側をファスニングテープシート31の一端部に接着するとともにこのリリーステープシート34の折り返し部に他方の面状ファスナーシート32と仮止め係合されている係合部材シート35を接着するので、ファスナーテープ15のリリーステープ片18とファスニングテープ片17との接着とリリ

ーステープ片18と係合部材20との接着が同時にでき、製造が容易となる。

【0087】なお、おむつ本体1の透液性表面シート2の幅方向の両側部に不織布にて形成した疎水性シートなど表面側の不織布シートを配設した構成では、ファスナーテープ15のリリーステープ片18は表面側の不織布シートに接着する。

【0088】次の使い捨ておむつ他の実施の形態を図7および図8に基づいてについて説明する。

【0089】この実施の形態では、前記図1と図2に示す使い捨ておむつにおいて、リリーステープ片18を他方の面状ファスナー14に仮止め係合できる係合部材にて形成したものである。

【0090】図3に示すように、おむつ本体1は吸収体4を間に配設した透液性表面シート2と不透液性裏面シート3にて背側腰回り部8、股下回り部7および腹側腰回り部9を連続して形成されている。

【0091】このおむつ本体1は、腹側腰回り部9の不透液性裏面シート3に設けた一方の面状ファスナー13と、前記おむつ本体1の背側腰回り部8の両側端部にそれぞれ取付けられこの背側腰回り部8の両側端から突出する突出部16を有するファスナーテープ15と、このファスナーテープ15のおむつ本体1からの突出部16の表面に設けられ前記おむつ本体1の腹側腰回り部8に設けた一方の面状ファスナー13に係脱自在に係合される他方の面状ファスナー14とを備えている。

【0092】前記ファスナーテープ15は、前記おむつ本体1の不透液性裏面シート3に接着されたファスニングテープ片17と前記透液性表面シート2に接着されたリリーステープ片18とにて形成し、このファスニングテープ片17とリリーステープ片18とにて前記おむつ本体1の背側腰回り部8の両側端部を挟着するとともにこの背側腰回り部8の両側端部からの突出部16を互いに接着し、前記ファスナーテープ15の突出部16を表面側に折り曲げて重ね合わせた状態でこのファスナーテープ15のリリーステープ片18を前記他方の面状ファスナー14と仮止め係合される係合部材にて形成したものである。

【0093】他の構成は図1および図2に示す構成と同一である。

【0094】次にこの実施の形態の作用を説明する。

【0095】ファスナーテープ15のおむつ本体1の不透液性裏面シート3に接着されたファスニングテープ片17と透液性表面シート2に接着されたリリーステープ片18とによりおむつ本体1の背側腰回り部8を挟着するので、ファスナーテープ15とおむつ本体1との結合が強固になり、また、ファスナーテープ15はおむつ本体1からの突出部16を折り畳んで他方の面状ファスナー14を係合部材にて形成したリリーステープ片に絡み仮止め係合でき、係合部材にてリリーステープ片を形成したため、リリーステープ片18に係合部材を接着する必要がなく、他

方の面状ファスナー14をリリーステープ片18に確実に仮止め係合でき、ファスナーテープ15がおむつ本体1の背側腰回り部8の両側端部から突出しない状態に確実に保持できる。

【0096】他の作用は前記図1および図2に示す実施の形態と同一である。

【0097】なお、前記実施の形態では、ファスナーテープ15のリリーステープ片18はおむつ本体1の不織布にて形成された透液性表面シート2に接着した構造について説明したが、おむつ本体1が透液性表面シート2の幅方向の両側部に疎水性シートなど不織布にて形成された表面側シートを配設した構造では、リリーステープ片18を疎水性シートなどの表面側の不織布にて形成したシートに接着する。

【0098】次に、使い捨ておむつの他の実施の形態を図9および図10に基づいて説明する。

【0099】この実施の形態では、前記図7および図8に示す使い捨ておむつにおいて、リリーステープ片18をおむつ本体1の不織布の透液性表面シート2にも仮止め係合できるようにしたものである。

【0100】おむつ本体1は図3に示すように、吸収体4を間に配設した透液性表面シート2と不透液性裏面シート3にて背側腰回り部8、股下回り部7および腹側腰回り部9が連続して形成されている。

【0101】このおむつ本体1の腹側腰回り部9の不透液性裏面シート3に設けた一方の面状ファスナー13と、前記おむつ本体1の背側腰回り部8の両側端部にそれぞれ取付けられこの背側腰回り部8の両側端から突出する突出部16を有するファスナーテープ15と、このファスナーテープ15のおむつ本体1からの突出部16の表面に設けられ前記おむつ本体1の腹側腰回り部9に設けた一方の面状ファスナー13に係脱自在に係合される他方の面状ファスナー14とを備えている。

【0102】そして、前記おむつ本体1の透液性表面シート2は不織布にて形成し、前記ファスナーテープ15は、前記おむつ本体1の不透液性裏面シート3に接着されたファスニングテープ片17と前記透液性表面シート2に接着されたリリーステープ片18とにて形成されている。

【0103】また、このファスニングテープ片17とリリーステープ片18とにて前記おむつ本体1の背側腰回り部8の両側端部を挟着するとともにこの背側腰回り部8の両側端部からの突出部16を互いに接着する。

【0104】そして、前記ファスナーテープ15のリリーステープ片18は前記他方の面状ファスナー14に係脱自在に係合される不織布など係合部材にて形成され、前記ファスナーテープ15の突出部16を表面側に折り曲げて重ね合わせた状態で前記他方の面状ファスナー14を前記おむつ本体1の不織布の透液性表面シート2と係合部材のリリーステープ片18とに仮止め係合可能としたもの

である。

【0105】そして、他の構成は前記図1および図2に示す構成と同一である。

【0106】次にこの実施の形態の作用を説明する。

【0107】ファスナーテープ15の不透液性裏面シート3に接着されたファスニングテープ片17と透液性表面シート2に接着されたリリーステープ片18とによりおむつ本体1の背側腰回り部8を挟着するので、ファスナーテープ15とおむつ本体1との結合が強固になり、また、ファスナーテープ15はおむつ本体1からの突出部16を折り畳んで他方の面状ファスナー14に係合部材にて形成したリリーステープ片18とおむつ本体1の不織布の透液性表面シート2とに絡み仮止め係合でき、係合部材にてリリーステープ片18を形成したため、リリーステープ片18に係合部材を接着する必要がなく、他方の面状ファスナー14をリリーステープ片18とおむつ本体1の不織布の透液性表面シート2とに絡み係合されるため、ファスナーテープ15がおむつ本体1の背側腰回り部8の両側端部から突出しない状態に確実に保持できる。

【0108】他の作用は前記図1および図2に示す実施の形態と同一である。

【0109】なお、前記実施の形態では、ファスナーテープ15のリリーステープ片18はおむつ本体1の不織布にて形成された透液性表面シート2に接着した構造について説明したが、おむつ本体1が透液性表面シート2の幅方向の両側部に疎水性シートなど不織布にて形成された表面側シートを配設した構造では、リリーステープ片18を疎水性シートなどの表面側の不織布にて形成したシートに接着する。

【0110】次に図7と図8および図9と図10に示す実施の形態の使い捨ておむつを製造する方法を図6に基づいて説明する。

【0111】図6(a)に示すように、連続して走行しているファスニングテープシート31の表面一端側に他方の面状ファスナーシート32を接着する(工程b)。次いで、連続して走行している鉤状の係止フック形の他方の面状ファスナーシート32と仮止め係合される係合部材シート35の他端側を一端側の表面側に折り返した状態でこの係合部材シート35の一端部を前記他方の面状ファスナーシート32を接着したファスニングテープシート31の一端側の表面に接着するとともに他端部を前記他方の面状ファスナーシート32と仮止め係合する(工程h)。

【0112】次いで、前記ファスニングテープシート31とこのファスニングテープシート31との一端部を互いに接着した係合部材シート35とを前記他方の面状ファスナーシート32とともに所定の幅で切断して他方の面状ファスナー14を接着したファスニングテープ片17と係合部材にて形成したリリーステープ片18とにてファスナーテープ15を形成する(工程i)。

【0113】また、前記ファスニングテープ片17の他端

部分を前記おむつ本体 1 の背側腰回り部 8 の両端部に
いて前記不透液性裏面シート 3 に接着する工程ととも
に、前記リリーステープ片 18 の他端側折り返し部を他方
の面状ファスナー 14 と仮止め係合した状態でファスニ
ングテープ片 17 とともに折り曲げて前記透液性表面シ
ート 2 に接着し、このファスニングテープ片 17 とリリ
ーステープ片 18 とにて前記おむつ本体 1 からの突出部
16 が折り畳まれたファスナーテープ 15 を形成する（工
程 j）。

【0114】他の方法は前記図 6 に示す方法と同一であ
る。

【0115】この実施の形態の作用を説明する。

【0116】ファスナーテープ 15 はおむつ本体 1 に取付
けられることにより、ファスナーテープ 15 のリリース
テープ片 18 に他方の面状ファスナー 14 が絡み係着状態に
あり、ファスナーテープ 15 をおむつ本体 1 に取付けた状態
でリリーステープ片 18 と他方の面状ファスナー 14 とが絡
んだ仮止め係合状態となり、ファスナーテープ 15 は容易
でかつ確実に突出部 16 をおむつ本体 1 に折り畳んで、フ
ァスナーテープ 15 がおむつ本体 1 の背側腰回り部 8 の両
側端部から突出しない状態に確実に保持できる。

【0117】また、ファスナーテープ 15 のリリーステ
ープ片 18 に係合部材を接着する工程を必要とせず、製造が
容易となる。

【0118】なお、おむつ本体 1 の透液性表面シート 2
の幅方向の両側部に不織布にて形成した疎水性シートな
ど表面側の不織布シートを配設した構成では、ファスナ
ーテープ 15 のリリーステープ片 18 は表面側の不織布シ
ートに接着する。

【0119】

【発明の効果】請求項 1 記載の発明によれば、ファス
ナーテープとおむつ本体との結合が強固になり、また、フ
ァスナーテープはおむつ本体からの突出部を折り畳んで
他方の面状ファスナーを係合部材に絡み仮止め係合がで
き、ファスナーテープは面状ファスナーが仮止め係合で
きない材質でも確実に仮止め係合ができ、ファスナーテ
ープはおむつ本体を身体に装着するまでは、折り畳まれ
ておむつ本体の背側腰回り部から突出していないので、
ファスナーテープに設けられている他方の面状ファスナ
ーがおむつ本体の不織布などに形成した透液性表面シ
ートなどに絡み係着して破損したり、変形したりするこ
とがなく、また、ファスナーテープが突出していること
による外観性を損なうことがない。

【0120】また、使い捨ておむつの製造工程におい
ても、おむつ本体の背側腰回り部の両端部からファスナ
ーテープが突出されていないので、ファスナーテープに設
けた他方の面状ファスナーが不必要におむつ本体の不織
布にて形成した透液性表面シートなどに絡み係着して製
造ができなくなることがない。

【0121】請求項 2 記載の発明によれば、ファスナ
ーテープとおむつ本体との結合が強固になり、また、ファ

スナーテープはおむつ本体からの突出部を折り畳んで他
方の面状ファスナーを係合部材とおむつ本体の不織布の
透液性表面シートなどに絡み仮止め係合でき、面状ファ
スナーが係着できない材質でも確実に仮止め係合でき、
この他方の面状ファスナーは係合部材とおむつ本体の表
面側の不織布シートとに絡み係着されるため、ファスナ
ーテープがおむつ本体の背側腰回り部の両側端部から突
出しない状態に確実に保持できる。

【0122】請求項 3 記載の発明によれば、ファスナ
ーテープとおむつ本体との結合が強固になり、また、フ
ァスナーテープはおむつ本体からの突出部を折り畳んで他
方の面状ファスナーを係合部材にて形成したリリーステ
ープ片に絡み仮止め係合でき、係合部材にてリリーステ
ープ片を形成したため、リリーステープ片に係合部材を
接着する必要がなく、他方の面状ファスナーをリリース
テープ片に確実に仮止め係合でき、ファスナーテープが
おむつ本体の背側腰回り部の両側端部から突出しない状
態に確実に保持できる。

【0123】請求項 4 記載の発明によれば、ファスナ
ーテープとおむつ本体との結合が強固になり、また、フ
ァスナーテープはおむつ本体からの突出部を折り畳んで他
方の面状ファスナーを係合部材にて形成したリリーステ
ープ片とおむつ本体の表面側不織布シートとに絡み係着
でき、係合部材にてリリーステープ片を形成したため、
リリーステープ片に係合部材を接着する必要がなく、他
方の面状ファスナーをリリーステープ片とおむつ本体の
表面側の不織布シートとに絡み仮止め係合され、ファ
スナーテープがおむつ本体の背側腰回り部の両側端部から
突出しない状態に確実に保持できる。

【0124】請求項 5 記載の発明によれば、ファスナ
ーテープはおむつ本体に取付けた状態でファスナーテ
ープのリリーステープ片の係合部材またはこの係合部材お
よび不織布にて形成した透液性表面シートと他方の面状
ファスナーが絡み仮止め係合状態にあり、ファスナーテ
ープをおむつ本体に取付けた状態でリリーステープ片の係
合部材またはこの係合部材および表面側の不織布シート
と他方の面状ファスナーとが絡んだ仮止め係合状態とな
り、ファスナーテープは容易でかつ確実に突出部をおむ
つ本体に折り畳んで接着できる。

【0125】請求項 6 記載の発明によれば、ファスナ
ーテープはおむつ本体に取付けることによりファスナー
テープのリリーステープ片の係合部材またはこの係合部材
および表面側の不織布シートと他方の面状ファスナーが
絡み係着状態にあり、ファスナーテープをおむつ本体に
取付けた状態でリリーステープ片の係合部材またはこの
係合部材および表面側の不織布シートと他方の面状ファ
スナーとが絡んだ仮止め係合状態となり、ファスナーテ
ープは容易でかつ確実に突出部をおむつ本体に折り畳ん
で、ファスナーテープがおむつ本体の背側腰回り部の両
側端部から突出しない状態に確実に保持できる。

【0126】また、ファスナーテープのリリーステープ片とファスニングテープ片との接着とリリーステープ片と係合部材との接着が同時にでき、製造が容易となる。

【0127】請求項7記載の発明によれば、ファスナーテープはおむつ本体に取付けることによりファスナーテープのリリーステープ片に他方の面状ファスナーが絡み係着状態にあり、ファスナーテープをおむつ本体に取付けた状態でリリーステープ片と他方の面状ファスナーとが絡んだ仮止め係合状態となり、ファスナーテープは容易でかつ確実に突出部をおむつ本体に折り畳んで、ファ

スナーテープがおむつ本体の背側腰回り部の両側端部から突出しない状態に確実に保持できる。

【図面の簡単な説明】

【図1】本発明の実施の一形態を示す使い捨ておむつのファスナーテープを取り付け部分の説明断面図である。

【図2】同上ファスナーテープを折り畳んだ状態を示す説明断面図である。

【図3】同上使い捨ておむつの展開平面図である。

【図4】本発明の実施の一形態を示す使い捨ておむつのファスナーテープを取り付け部分の説明断面図である。

【図5】同上ファスナーテープを折り畳んだ状態を示す説明断面図である。

【図6】本発明の使い捨ておむつの製造方法の一実施の形態を示す説明図である。

*【図7】本発明の実施の一形態を示す使い捨ておむつのファスナーテープを取り付け部分の説明断面図である。

【図8】同上ファスナーテープを折り畳んだ状態を示す説明断面図である。

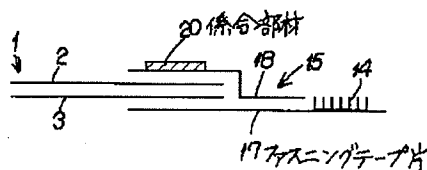
【図9】本発明の実施の一形態を示す使い捨ておむつのファスナーテープを取り付け部分の説明断面図である。

【図10】同上ファスナーテープを折り畳んだ状態を示す説明断面図である。

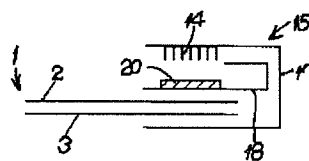
【符号の説明】

- | | | |
|----|----|----------------|
| 10 | 1 | おむつ本体 |
| | 2 | 透液性表面シート |
| | 3 | 不透液性裏面シート |
| | 4 | 吸収体 |
| | 7 | 股下回り部 |
| | 8 | 背側腰回り部 |
| | 9 | 腹側腰回り部 |
| | 13 | 一方の面状ファスナー |
| | 14 | 他方の面状ファスナー |
| | 15 | ファスナーテープ |
| 20 | 16 | ファスナーテープ15の突出部 |
| | 17 | ファスニングテープ片 |
| | 18 | リリーステープ片 |
| | 20 | 係合部材 |
| | 31 | ファスニングテープシート |
| | 32 | 他方の面状ファスナーシート |
| | 34 | リリーステープシート |
| * | 35 | 係合部材シート |

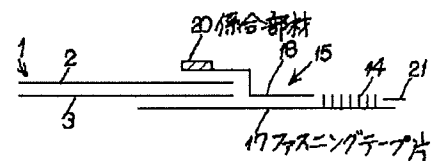
【図1】



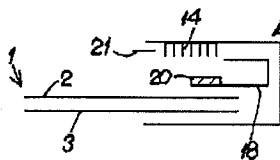
【図2】



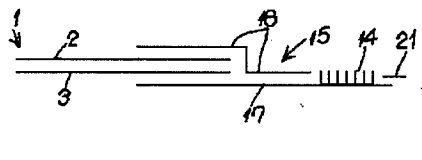
【図4】



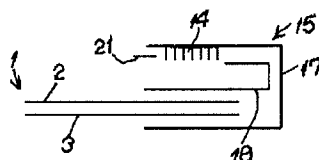
【図5】



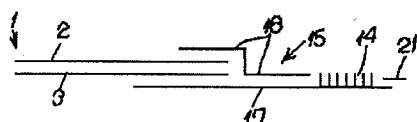
【図7】



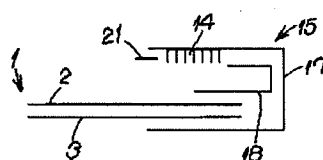
【図8】



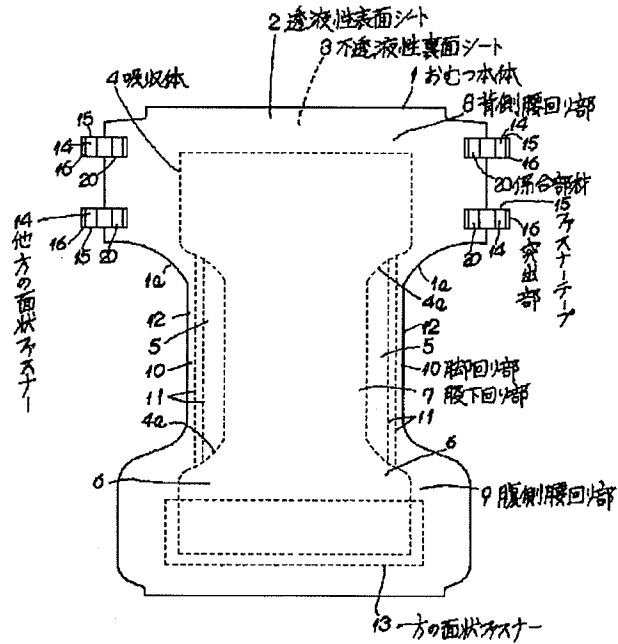
【図9】



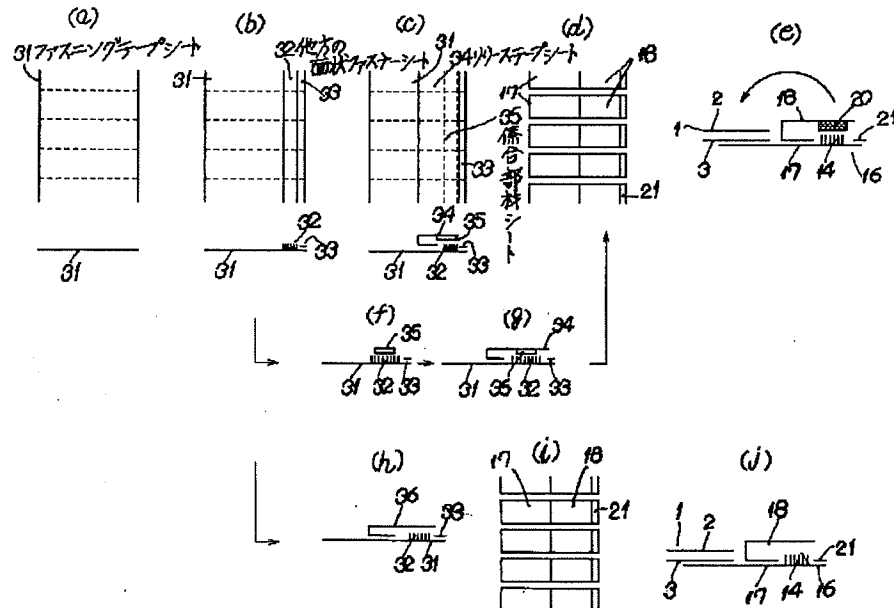
【図10】



【図3】



【図6】



フロントページの続き

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CLAIMS

[Claim(s)]

[Claim 1] The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The disposable diaper characterized by pasting up the engagement member which engages [tacking] with the field-like fastener of said another side free [engaging and releasing] where the lobe of said zipper tape is bent and laid on top of a front-face side on the front face of the part pasted up on said front-face side sheet of said piece of a release tape.

[Claim 2] The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the front-face side with the nonwoven fabric sheet, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the nonwoven fabric sheet by the side of said front face. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The engagement member which is located in the part pasted up on the nonwoven fabric sheet by the side of said front face, and engages [tacking] with the field-like fastener of said another side free [engaging and releasing] is pasted up on the front face of the piece of a release tape of said zipper tape. The disposable diaper characterized by enabling tacking engagement of the field-like fastener of said another

side to the nonwoven fabric sheet and engagement member by the side of the front face of said body of a diaper where the lobe of said zipper tape is bent and laid on top of a front-face side.

[Claim 3] The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the front-face side with the nonwoven fabric sheet, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. This piece of a release tape is formed in the engagement member which engages [tacking] with the field-like fastener of said another side. The disposable diaper characterized by tacking engaging the piece of a release tape of this zipper tape with the field-like fastener of said another side where the lobe of said zipper tape is bent and laid on top of a front-face side.

[Claim 4] The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the front-face side with the nonwoven fabric sheet, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The piece of a release tape of said zipper tape is formed in the engagement member which engages [tacking] with the field-like fastener of said another side free [engaging and releasing]. The disposable diaper characterized by enabling tacking engagement of the field-like fastener of said another side to the nonwoven fabric sheet by the side of the front face of said body of a diaper, and the piece of a release tape of an engagement member where the lobe of said zipper tape is bent and laid on top of a front-face side.

[Claim 5] The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece

of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The lobe of said zipper tape To a front-face side In the condition of having bent and piled up, the field-like fastener of said another side Or it is the manufacture approach of a disposable diaper of having pasted up the engagement member which engages [tacking] with the front-face side sheet formed with the field-like fastener and nonwoven fabric of this another side free [engaging and releasing] on the front face of the part pasted up on said front-face side sheet of said piece of a release tape. The process which pastes up the field-like fastener sheet of another side on the surface end side of the FASUNINGU tape sheet it is running continuously, The process which pastes up an engagement member sheet on the surface other end side of the release tape sheet it is running continuously, Where the other end side of the release tape sheet on which said engagement member sheet was pasted up is turned up to the front-face side by the side of an end, while pasting up the end section of this release tape sheet on the front face by the side of the end of the FASUNINGU tape sheet on which the field-like fastener sheet of said another side was pasted up The process tacking engaged in the field-like fastener sheet and said engagement member sheet of said another side, The release tape sheet on which the end section of said FASUNINGU tape sheet and this FASUNINGU tape sheet was pasted up mutually with the field-like fastener sheet and engagement member sheet of said another side The process which forms a zipper tape in the piece of a FASUNINGU tape which cut by predetermined width of face and pasted up the field-like fastener of another side, and the piece of a release tape which pasted up the engagement member, The process which pastes up a part for the other end of said piece of a FASUNINGU tape on said non-liquid-permeable nature rear-face sheet in the both ends of the backside waist section of said body of a diaper, Where the field-like fastener and engagement member of another side are tacking engaged, bend the other end side clinch section of said piece of a release tape with the piece of a FASUNINGU tape, and said front-face side sheet is pasted. The manufacture approach of the disposable diaper characterized by having the process which forms the zipper tape with which the lobe from said body of a diaper was folded up in this piece of a FASUNINGU tape, and the piece of a release tape.

[Claim 6] The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The lobe of said zipper tape To a front-face side In the condition of having bent and piled up, the field-like fastener of said another side Or it is the manufacture approach of a disposable diaper of having pasted up the engagement member which engages [tacking] with said front-face side sheet formed with the field-like fastener and nonwoven fabric of this another side free [engaging and releasing] on the front face of the part pasted up on said front-face side sheet of said piece of a release tape. The process which pastes up the field-like fastener sheet of another side on the surface end side of the FASUNINGU tape sheet it is running continuously, The process which engages [tacking] an engagement member sheet with the field-like fastener sheet of another side adhered to said FASUNINGU tape sheet it is running continuously, The process which pastes up said engagement

member sheet on the clinch section of this release tape sheet while pasting up the end side of a release tape sheet on the end section of said FASUNINGU tape sheet, The release tape sheet on which the end section of said FASUNINGU tape sheet and this FASUNINGU tape sheet was pasted up mutually with the field-like fastener sheet and engagement member sheet of said another side The process which forms a zipper tape in the piece of a FASUNINGU tape which cut by predetermined width of face and pasted up the field-like fastener of another side, and the piece of a release tape which pasted up the engagement member, The process which pastes up a part for the other end of said piece of a FASUNINGU tape on said non-liquid-permeable nature rear-face sheet in the both ends of the backside waist section of said body of a diaper, Where the field-like fastener and engagement member of another side are tacking engaged, bend the other end side clinch section of said piece of a release tape with the piece of a FASUNINGU tape, and said front-face side sheet is pasted. The manufacture approach of the disposable diaper characterized by having the process which forms the zipper tape with which the lobe from said body of a diaper was folded up in this piece of a FASUNINGU tape, and the piece of a release tape.

[Claim 7] The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, It is prepared in the front face of the lobe from the body of a diaper of this zipper tape, and has the field-like fastener of another side which engages with the front-face side sheet which while prepared in the venter waist section of said body of a diaper, and was formed in it with the field-like fastener or the field-like fastener of one of these, and the nonwoven fabric free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on said front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. Where the lobe of said zipper tape is bent and laid on top of a front-face side, it is the manufacture approach of the disposable diaper which formed the piece of a release tape of this zipper tape in the engagement member which engages [tacking] with the field-like fastener of said another side. The process which pastes up the field-like fastener sheet of another side on the surface end side of the FASUNINGU tape sheet it is running continuously, It continues. Where the other end side of the engagement member sheet which engages [tacking] with the field-like fastener sheet of said another side it is running is turned up to the front-face side by the side of an end, while pasting up the end section of this engagement member sheet on the front face by the side of the end of the FASUNINGU tape sheet on which the field-like fastener sheet of said another side was pasted up The process which engages [tacking] the other end with the field-like fastener sheet of said another side, The engagement member sheet on which the end section of said FASUNINGU tape sheet and this FASUNINGU tape sheet was pasted up mutually with the field-like fastener sheet of said another side The process which forms a zipper tape in the piece of a FASUNINGU tape which cut by predetermined width of face and pasted up the field-like fastener of another side, and the piece of a release tape formed in the engagement member, The process which pastes up a part for the other end of said piece of a FASUNINGU tape on said non-liquid-permeable nature rear-face sheet in the both ends of the backside waist section of said body of a diaper, Bend the other end side clinch section of said piece of a release tape with the piece of a FASUNINGU tape in the condition of having tacking engaged with the field-like fastener of another side, and said front-face side sheet is pasted. The manufacture approach of the disposable diaper characterized by having the process which forms the zipper tape with which the lobe from said body of a diaper was folded up in this piece of a FASUNINGU tape, and the piece of a release tape.

[Translation done.]

* NOTICES *

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- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the disposable diaper and its manufacture approaches the object for infants which has a zipper tape, the object for adults, for incontinentia, etc., and relates to the zipper tape used when equipping with a diaper especially.

[0002]

[Description of the Prior Art] The structure which while was prepared in the venter waist section, and this conventional kind of disposable diaper engages with a field-like fastener the field-like fastener of another side of a zipper tape established in the both ends of the backside waist section free [engaging and releasing] in the body of a diaper in which the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section were formed, and equipped the body with the body of a diaper is taken.

[0003] And when equipping, and the field-like fastener of another side established in the zipper tape might be engaged involving the liquid permeability surface sheet formed with the nonwoven fabric of the body of a diaper, and it might damage, it might deform and the zipper tape has projected, there is [if it changes into the condition / that the zipper tape prepared in the both ends of the backside waist section is projected from the both ends of the backside waist section in such a disposable diaper / ,] a problem which spoils appearance nature.

[0004] Moreover, also in the production process of a disposable diaper, it the zipper tape is projected from the both ends of the backside waist section of the body of a diaper, the field-like fastener of another side established in the zipper tape is engaged involving the liquid permeability surface sheet superfluously formed with the nonwoven fabric of the body of a diaper, and manufacture becomes impossible.

[0005] Then, it is made not to project from the body of a diaper by folding up conventionally the part projected from the both ends of the backside waist section of the body of a diaper of a zipper tape. As it is indiscriminately involved in the sheet by the side of the front face formed with the nonwoven fabric of the body of a diaper and does not engage with it, prevent breakage of a zipper tape, and deformation, make appearance nature good, and raise salability, and it also sets to a production process. As debt engagement of the zipper tape is not carried out indiscriminately, it can be made to do manufacture certainly.

[0006] And fastening adhesion of the piece of a FASUNINGU tape and the piece of a release tape of a zipper tape is conventionally carried out to the both ends of the backside waist section of the body of a diaper, the adhesives for [tacking] are applied to the lobe of a zipper tape, and the structure which folds up the lobe of this zipper tape and is pasted up on the body of a diaper with the adhesives for [temporary tacking] is known.

[0007] Moreover, in the backside waist section of the body of a diaper, a zipper tape is put between a liquid permeability surface sheet and a non-liquid-permeable nature rear-face sheet, it pastes up, and the structure which the field-like fastener which folded up the lobe of this zipper tape and was formed in this

lobe is made to involve and engage with front-face side sheets, such as a liquid permeability surface sheet formed with the nonwoven fabric of the body of a diaper, and carries out tacking of the zipper tape is known.

[0008] Furthermore, a field-like fastener is formed in a lobe from the both ends of the backside waist section of the zipper tape pasted up on the non-liquid-permeable nature rear-face sheet in the backside waist section of the body of a diaper, and the structure which fold up the lobe of this zipper tape, and the field-like fastener of a lobe is made to involve and engage with the front-face side sheet formed with the nonwoven fabric of the body of a diaper, and carries out tacking of the zipper tape is known.

[0009] Moreover, the manufacture approach which the field-like fastener which folds up the lobe from the backside waist section of the body of a diaper of the zipper tape which pasted up the zipper tape with which the field-like fastener was attached in the zipper tape, and this field-like fastener was attached in order to have attached the zipper tape in the body of a diaper conventionally on the body of a diaper, and was pasted up on this body of a diaper, and be formed in this lobe be made to involve and engage with the front-face side sheet formed with the nonwoven fabric of body of a diaper, and carries out tacking of the zipper tape be taken.

[0010]

[Problem(s) to be Solved by the Invention] Although the installation reinforcement of a zipper tape increases, when engaging and releasing of a zipper tape repeats on the body of a diaper with tacking adhesives with the structure which folds up and carries out temporary adhesion of the lobe of a zipper tape, with the structure which carries out fastening adhesion of the above-mentioned conventional body of a diaper in the piece of a FASUNINGU tape and the piece of a release tape of a zipper tape, folds up the lobe of a zipper tape with the adhesives for [tacking] formed in the lobe of a zipper tape and carries out temporary adhesion at the body of a diaper, has the problem to which the tacking adhesive strength of adhesives falls

[0011] Then, if it is the structure which replaced with the adhesives tacking pasted up on the body of a diaper at a zipper tape, and formed the field-like fastener, since engagement of a field-like fastener is impossible involving the piece of a release tape, it has the problem which cannot do eye tacking.

[0012] Moreover, put a zipper tape between the liquid permeability surface sheet of the body of a diaper, and a non-liquid-permeable nature rear-face sheet, and it pastes up. The structure which the field-like fastener formed in the lobe of this zipper tape is made to involve and engage with the liquid permeability surface sheet of the body of a diaper, and carries out tacking of the zipper tape, Or a zipper tape is pasted up on the non-liquid-permeable nature rear-face sheet of the body of a diaper. With the structure which fold up the lobe of this zipper tape, and the field-like fastener of a lobe is made to involve and engage with the liquid permeability surface sheet of the body of a diaper, and carries out tacking of the zipper tape The installation reinforcement of the body of a diaper and a zipper tape is weak, and it has the problem on which a zipper tape may fracture and separate from the body of a diaper at the time of use.

[0013] Furthermore, after attaching a zipper tape in the above-mentioned conventional body of a diaper, by the approach of folding up a zipper tape and tacking carrying out of the field-like fastener to the body of a diaper, after attaching a zipper tape in the body of a diaper, a zipper tape must be folded up, a field-like fastener must be involved and engaged, and it has the problem from which folding of a zipper tape tends to become uncertainty.

[0014] This invention was made in view of the above-mentioned trouble, association with the body of a diaper and a zipper tape is strong, and eye fold-up tacking of a zipper tape offers the positive disposable diaper made easily and its manufacture approach.

[0015]

[Means for Solving the Problem] The body of a diaper which the disposable diaper of invention according to claim 1 has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in

the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The engagement member which engages [tacking] with the field-like fastener of said another side free [engaging and releasing] where the lobe of said zipper tape is bent and laid on top of a front-face side is pasted up on the front face of the part pasted up on said front-face side sheet of said piece of a release tape.

[0016] And since the backside waist section of the body of a diaper is fastened by the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of a zipper tape, and the piece of a release tape pasted up on front-face side sheets, such as a liquid permeability surface sheet Association with a zipper tape and the body of a diaper becomes firm, and a zipper tape folds up the lobe from the body of a diaper, and can be engaged involving an engagement member in the field-like fastener of another side. It can be certainly tacking engaged also with the quality of the material with which a field-like fastener cannot engage, and can hold certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0017] The disposable diaper of invention according to claim 2 has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and forms a front-face side with a nonwoven fabric sheet. The backside waist section, The body of a diaper which formed the circumference section of length from the crotch to the cuff, and the venter waist section continuously, and the field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the nonwoven fabric sheet by the side of said front face. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The engagement member which is located in the part pasted up on the nonwoven fabric sheet by the side of said front face, and engages [tacking] with the field-like fastener of said another side free [engaging and releasing] is pasted up on the front face of the piece of a release tape of said zipper tape. Where the lobe of said zipper tape is bent and laid on top of a front-face side, tacking engagement of the field-like fastener of said another side to the nonwoven fabric sheet and engagement member by the side of the front face of said body of a diaper is enabled.

[0018] And since the backside waist section of the body of a diaper is fastened by the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of a zipper tape, and the piece of a release tape pasted up on the nonwoven fabric sheet by the side of a front face Association with a zipper tape and the body of a diaper becomes firm, and a zipper tape folds up the lobe from the body of a diaper, and can involve and engage the field-like fastener of another side with an engagement member and the nonwoven fabric sheet by the side of the front face of the body of a diaper. It can be certainly tacking engaged also with the quality of the material with which a field-like fastener cannot engage, and since the field-like fastener of this another side involves and engages with an engagement member and the nonwoven fabric sheet by the side of the front face of the body of a diaper, it can be certainly held in the condition that a zipper tape does not project from the both-sides edge of the

backside waist section of the body of a diaper.

[0019] The disposable diaper of invention according to claim 3 has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and forms a front-face side with a nonwoven fabric sheet. The backside waist section, The body of a diaper which formed the circumference section of length from the crotch to the cuff, and the venter waist section continuously, and the field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. This piece of a release tape is formed in the engagement member which engages [tacking] with the field-like fastener of said another side. Where the lobe of said zipper tape is bent and laid on top of a front-face side, the piece of a release tape of this zipper tape is tacking engaged with the field-like fastener of said another side.

[0020] And since the backside waist section of the body of a diaper is fastened by the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of a zipper tape, and the piece of a release tape pasted up on the liquid permeability surface sheet It can be engaged involving the piece of a release tape which association with a zipper tape and the body of a diaper became firm, and folded up the lobe from the body of a diaper of a zipper tape, and formed the field-like fastener of another side in the engagement member. Since the piece of a release tape was formed in the engagement member, it is not necessary to paste up an engagement member on the piece of a release tape. It can tacking engage with the piece of a release tape certainly, and the field-like fastener of another side can be certainly held in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0021] The disposable diaper of invention according to claim 4 has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and forms a front-face side with a nonwoven fabric sheet. The backside waist section, The body of a diaper which formed the circumference section of length from the crotch to the cuff, and the venter waist section continuously, and the field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The piece of a release tape of said zipper tape is formed in the engagement member which engages [tacking] with the field-like fastener of said another side free [engaging and releasing]. Where the lobe of said zipper tape is bent and laid on top of a front-face side, tacking engagement of the field-like fastener of said another side to the nonwoven fabric sheet by the side of the front face of said body of a diaper and the piece of a release tape of an engagement member is enabled.

[0022] And since the backside waist section of the body of a diaper is fastened by the piece of a

FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of a zipper tape, and the piece of a release tape pasted up on the nonwoven fabric sheet by the side of a front face Association with a zipper tape and the body of a diaper becomes firm, and a zipper tape can involve and engage with the piece of a release tape which folded up the lobe from the body of a diaper and formed the field-like fastener of another side in the engagement member, and the sheet of the nonwoven fabric by the side of the front face of the body of a diaper. Since it is not necessary to paste up an engagement member on the piece of a release tape since the piece of a release tape was formed in the engagement member, and the field-like fastener of another side involves and engages with the piece of a release tape, and the nonwoven fabric sheet by the side of the front face of the body of a diaper, It can hold certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0023] The manufacture approach of the disposable diaper invention according to claim 5 The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The lobe of said zipper tape To a front-face side In the condition of having bent and piled up, the field-like fastener of said another side Or it is the manufacture approach of a disposable diaper of having pasted up the engagement member which engages [tacking] with the field-like fastener of this another side, and the nonwoven fabric sheet by the side of a front face free [engaging and releasing] on the front face of the part pasted up on the sheet by the side of said front face of said piece of a release tape.

[0024] The process which pastes up the field-like fastener sheet of another side on the surface end side of the FASUNINGU tape sheet as for which the manufacture approach of this disposable diaper is running continuously, The process which pastes up an engagement member sheet on the surface other end side of the release tape sheet it is running continuously, Where the other end side of the release tape sheet on which said engagement member sheet was pasted up is turned up to the front-face side by the side of an end, while pasting up the end section of this release tape sheet on the front face by the side of the end of the FASUNINGU tape sheet on which the field-like fastener sheet of said another side was pasted up The process tacking engaged in the field-like fastener sheet and said engagement member sheet of said another side, The release tape sheet on which the end section of said FASUNINGU tape sheet and this FASUNINGU tape sheet was pasted up mutually with the field-like fastener sheet and engagement member sheet of said another side The process which forms a zipper tape in the piece of a FASUNINGU tape which cut by predetermined width of face and pasted up the field-like fastener of another side, and the piece of a release tape which pasted up the engagement member, The process which pastes up a part for the other end of said piece of a FASUNINGU tape on said non-liquid-permeable nature rear-face sheet in the both ends of the backside waist section of said body of a diaper, Where the field-like fastener and engagement member of another side are tacking engaged, bend the other end side clinch section of said piece of a release tape with the piece of a FASUNINGU tape, and said front-face side sheet is pasted. It has the process which forms the zipper tape with which the lobe from said body of a diaper was folded up in this piece of a FASUNINGU tape, and the piece of a release tape.

[0025] And the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape of a zipper tape, or this engagement member and a front face and the field-like fastener of another side are involved in the condition of having attached in the body of a diaper, and a zipper tape is in a tacking engagement condition. It will be in the tacking engagement condition that the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape, or this engagement member and a front face and the field-like fastener of another side were involved where a zipper tape is attached in the body of a diaper. A zipper tape folds up a lobe on the body of a diaper easily certainly, and can be pasted up.

[0026] The manufacture approach of the disposable diaper invention according to claim 6 The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The lobe of said zipper tape To a front-face side In the condition of having bent and piled up, the field-like fastener of said another side Or it is the manufacture approach of a disposable diaper of having pasted up the engagement member which engages [tacking] with said front-face side sheet formed with the field-like fastener and nonwoven fabric of this another side free [engaging and releasing] on the front face of the part pasted up on said front-face side sheet of said piece of a release tape.

[0027] The process which pastes up the field-like fastener sheet of another side on the surface end side of the FASUNINGU tape sheet as for which the manufacture approach of this disposable diaper is running continuously, The process which engages [tacking] an engagement member sheet with the field-like fastener sheet of another side adhered to said FASUNINGU tape sheet it is running continuously, The process which pastes up said engagement member sheet on the clinch section of this release tape sheet while pasting up the end side of a release tape sheet on the end section of said FASUNINGU tape sheet, The release tape sheet on which the end section of said FASUNINGU tape sheet and this FASUNINGU tape sheet was pasted up mutually with the field-like fastener sheet and engagement member sheet of said another side The process which forms a zipper tape in the piece of a FASUNINGU tape which cut by predetermined width of face and pasted up the field-like fastener of another side, and the piece of a release tape which pasted up the engagement member, The process which pastes up a part for the other end of said piece of a FASUNINGU tape on said non-liquid-permeable nature rear-face sheet in the both ends of the backside waist section of said body of a diaper, Where the field-like fastener and engagement member of another side are tacking engaged, bend the other end side clinch section of said piece of a release tape with the piece of a FASUNINGU tape, and said front-face side sheet is pasted. It has the process which forms the zipper tape with which the lobe from said body of a diaper was folded up in this piece of a FASUNINGU tape, and the piece of a release tape.

[0028] And by attaching in the body of a diaper, the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape of a zipper tape, or this engagement member and a front face and the field-like fastener of another side are involved, and a zipper tape is in an engagement condition. It will be in the tacking engagement condition that the liquid permeability surface sheet and the field-like fastener of another side which were formed with an engagement member, or this

engagement member and nonwoven fabric of the piece of a release tape where a zipper tape is attached in the body of a diaper were involved. A zipper tape folds up a lobe on the body of a diaper easily certainly, and can hold it certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0029] Moreover, adhesion with adhesion and the piece of a release tape of the piece of a release tape of a zipper tape and the piece of a FASUNINGU tape, and an engagement member is made to coincidence, and manufacture becomes easy.

[0030] The manufacture approach of the disposable diaper invention according to claim 7 The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, It is prepared in the front face of the lobe from the body of a diaper of this zipper tape, and has the field-like fastener of another side which engages with the front-face side sheet which while prepared in the venter waist section of said body of a diaper, and was formed in it with the field-like fastener or the field-like fastener of one of these, and the nonwoven fabric free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on said front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. Where the lobe of said zipper tape is bent and laid on top of a front-face side, it is the manufacture approach of the disposable diaper which formed the piece of a release tape of this zipper tape in the engagement member which engages [tacking] with the field-like fastener of said another side.

[0031] The process which pastes up the field-like fastener sheet of another side on the surface end side of the FASUNINGU tape sheet as for which the manufacture approach of this disposable diaper is running continuously, It continues. Where the other end side of the engagement member sheet which engages [tacking] with the field-like fastener sheet of said another side it is running is turned up to the front-face side by the side of an end, while pasting up the end section of this engagement member sheet on the front face by the side of the end of the FASUNINGU tape sheet on which the field-like fastener sheet of said another side was pasted up The process which engages [tacking] the other end with the field-like fastener sheet of said another side, The engagement member sheet on which the end section of said FASUNINGU tape sheet and this FASUNINGU tape sheet was pasted up mutually with the field-like fastener sheet of said another side The process which forms a zipper tape in the piece of a FASUNINGU tape which cut by predetermined width of face and pasted up the field-like fastener of another side, and the piece of a release tape formed in the engagement member, The process which pastes up a part for the other end of said piece of a FASUNINGU tape on said non-liquid-permeable nature rear-face sheet in the both ends of the backside waist section of said body of a diaper, Bend the other end side clinch section of said piece of a release tape with the piece of a FASUNINGU tape in the condition of having tacking engaged with the field-like fastener of another side, and said front-face side sheet is pasted. It has the process which forms the zipper tape with which the lobe from said body of a diaper was folded up in this piece of a FASUNINGU tape, and the piece of a release tape.

[0032] And the field-like fastener of another side is involved in the piece of a release tape of a zipper tape by attaching in the body of a diaper, a zipper tape is in an engagement condition, it will be in the tacking engagement condition that the piece of a release tape and the field-like fastener of another side were involved where a zipper tape is attached in the body of a diaper, and a lobe can be folded up on the body of a diaper easily certainly, and a zipper tape can hold it certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0033] Moreover, the process which pastes up an engagement member on the piece of a release tape of a zipper tape is not needed, but manufacture becomes easy.

[0034]

[Embodiment of the Invention] Next, the configuration of one gestalt of operation of the disposable diaper of this invention is explained with reference to drawing 1 thru/or drawing 3.

[0035] In drawing 1 thru/or drawing 3, 1 is a body of a diaper. This body 1 of a diaper The absorber 4 which has liquid absorptivity is arranged between the liquid permeability surface sheet 2 which has liquid permeability, and the non-liquid-permeable nature rear-face sheet 3 which has liquid impermeability. This body 1 of a diaper While forming the center section of the longitudinal direction in the configuration of the abbreviation symmetry as a core with approximately long-shaped in the state of expansion, it is formed in the configuration of bilateral symmetry centering on the crosswise center section.

[0036] And concave arc-like marginal 4a which concave arc-like marginal 1a which cut in the shape of an abbreviation concave arc towards the method of inside, and was lacked was formed so that the pars intermedia of a longitudinal direction might become narrow [-like], and the pars intermedia of a longitudinal direction also turned off said absorber 4 in the shape of an abbreviation concave arc towards the method of inside so that it might become narrow [-like], and the liquid permeability surface sheet 2 of said body 1 of a diaper and the non-liquid-permeable nature rear-face sheet 3 lacked is formed.

[0037] Moreover, said liquid permeability surface sheet 2 has liquid permeability in order to make elimination physiology liquid, such as urine, penetrate to said absorber 4, for example, it is formed with the cheesecloth, the nonwoven fabric, the porous film, the synthetic fiber, etc.

[0038] Moreover, said non-liquid-permeable nature rear-face sheet 3 had liquid impermeability so that other clothing, such as underwear, or a sheet might not be soiled, for example, it was fabricated with synthetic-resin sheets, such as polyethylene resin, etc., and the periphery section has pasted it up on the periphery section of said liquid permeability surface sheet 2.

[0039] Said absorber 4 is cast in the shape of an approximately long rectangle, and it is arranged so that concave arc-like marginal 1a of this liquid permeability surface sheet 2 and the non-liquid-permeable nature rear-face sheet 3 may be countered and concave arc-like marginal 4a of the pars intermedia of a longitudinal direction may be located between said liquid permeability surface sheet 2 and the non-liquid-permeable nature rear-face sheet 3. Moreover, this absorber 4 elimination physiology liquid, such as urine, is boiled, it can absorb, for example, pulp is fabricated with the ingredient which contained matter, such as a high-polymer absorbent, in the part as a charge of a principal member.

[0040] And it is located in the outside of said absorber 4, and the flap section 5 is formed with said liquid permeability surface sheet 2 and said non-liquid-permeable nature rear-face sheet 3.

[0041] Furthermore, the polymerization of the hydrophobic sheet 6 which had for example, formed in right and left of the front face of the liquid permeability surface sheet 2 of said body 1 of a diaper the property which does not permeate elimination physiology liquid, such as urine, from said flap section 5 to pars intermedia with non-liquid-permeable nature ingredients, such as polypropylene resin, is carried out, and the center section of the liquid permeability surface sheet 2 is exposed between the inside edges of the hydrophobic sheet 6 of these right and left. And this hydrophobic sheet 6 was formed in the shape of [which the radial border of the pars intermedia of a longitudinal direction cut in the shape of an abbreviation concave arc, and lacked toward the inner direction according to the liquid permeability surface sheet 2] an approximately long rectangle, and the radial-border section of the inferior surface of tongue of this hydrophobic sheet 6 has pasted it up on the periphery section of said liquid permeability surface sheet 2.

[0042] Next, said body 1 of a diaper is that with which is bent from the expansion condition shown in drawing 3, and the body is equipped. The backside waist section 8 located in the end side of the longitudinal direction of the circumference section 7 of length from the crotch to the cuff located in the length from the crotch to the cuff of the pars intermedia of the longitudinal direction in an expansion condition and the circumference section 7 of this length from the crotch to the cuff at a back side at the time of wearing in the body is formed in one. And the venter waist section 9 located in a venter at the

other end side of the longitudinal direction of the circumference section 7 of said length from the crotch to the cuff is formed in one.

[0043] Moreover, the circumference section 10 of a foot in alignment with concave arc-like marginal 1a of crosswise edges on both sides is formed in the both-sides center section of the circumference section 7 of said length from the crotch to the cuff. The flap elastic body 11 of the shape of **** formed in the circumference section 10 of this foot with 1 or two or more rubber is arranged along with the longitudinal direction of said body 1 of a diaper between said liquid permeability surface sheet 2 and said non-liquid-permeable nature rear-face sheet 3, and the circumference gathers section 12 of a foot is formed in the flap section 5 of the both-sides section of said absorber 4 with this flap elastic body 11.

[0044] And it receives in the abbreviation center section of the venter waist section 9 of said non-liquid-permeable nature rear-face sheet 3, and one field-like fastener 13 of a hook form is attached by adhesion or attaching by sewing.

[0045] Moreover, the zipper tape 15 on which the field-like fastener 14 of another side of the stop hook form of the shape of a hook engaged free [engaging and releasing on one / said / field-like fastener 13] was pasted up is attached in the both ends of the cross direction of the backside waist section 8 of said liquid permeability surface sheet 2.

[0046] Said zipper tape 15 had the lobe 16 which projects from the both-sides edge of said backside waist section, and the field-like fastener 14 of said another side has pasted it up on the end section of the front face which becomes in the lobe 16 of this zipper tape 15 the same field side as the field by the side of said liquid permeability surface sheet 2.

[0047] And the zipper tape 15 which the field-like fastener 14 of said another side has pasted up on said end section It is formed by the piece 17 of a FASUNINGU tape which the other end pasted up on said non-liquid-permeable nature rear-face sheet 3, and the piece 18 of a release tape which the other end pasted up on said liquid permeability surface sheet 2. While fastening the backside waist section 8 of said body 1 of a diaper from an external surface side in the other end of said piece 17 of a FASUNINGU tape, and the other end of the piece 18 of a release tape, the end section used as the lobe 16 from this backside waist section 8 is pasted up mutually.

[0048] Moreover, the field-like fastener 14 of said another side established in the lobe 16 of said zipper tape 15 was involved, and the engagement members 20, such as a field-like fastener of the receptacle hook form in which tacking engagement is possible, or a nonwoven fabric, are pasted up on the front face of the part pasted up on said liquid permeability surface sheet 2 of the other end of said piece 18 of a release tape by adhesion etc.

[0049] This piece 18 of a release tape is shorter than said piece 17 of a FASUNINGU tape. The end section of the piece 17 of a FASUNINGU tape is projected from the end section of the piece 18 of a release tape. Said engagement member 20 pasted the front face of the part projected from the end section of the piece 18 of a release tape of this piece 17 of a FASUNINGU tape, further, it gathered in the front face of the end section which projects from the part which pasted up the engagement member 20 of this piece 17 of a FASUNINGU tape, and the piece 21 of a sheet has pasted up.

[0050] As shown in drawing 2, the lobe 16 of said zipper tape 15 is turned up to the front-face side of the body 1 of a diaper from the edges-on-both-sides section of the backside waist section 8 of the body 1 of a diaper. And superposition, It is held at the condition that this zipper tape 15 folds the field-like fastener 14 of another side adhered to this zipper tape 15 in the front-face side of the body 1 of a diaper by tacking engaging with the engagement member 20 free [engaging and releasing], and a pile does not project from the edges-on-both-sides section of the backside waist section 8 of the body 1 of a diaper.

[0051] Next, an operation of the gestalt of the 1 above-mentioned implementation is explained.

[0052] When equipping the body with the body 1 of a diaper, as shown in drawing 2, the lobe 16 from the body 1 of a diaper is folded up, the field-like fastener 14 of another side is engaged involving the engagement member 20, and the zipper tape 15 attached in the body 1 of a diaper is being tacking engaged.

[0053] On the occasion of use, the tacking engagement to the field-like fastener 14 of another side and the engagement member 20 is solved, a zipper tape 15 is turned up, and the lobe 16 of a zipper tape 15 is

made to project from the both ends of the backside waist section 8, respectively.

[0054] And as the front face by the side of the liquid permeability surface sheet 2 of the body 1 of a diaper is contacted by the skin, while it locates the circumference section 7 of length from the crotch to the cuff of the body 1 of a diaper in length from the crotch to the cuff, the backside waist section 8 is located in a back side, and the venter waist section 9 is further located in a venter. The field-like fastener 14 of another side of the zipper tape 15 which while has fixed in the backside waist section 8 of this body 1 of a diaper, and is attached in it in the backside waist section 9 at the field-like fastener 13 is made engaged respectively free [engaging and releasing], and it equips with it.

[0055] Since the backside waist section 8 of the body 1 of a diaper is fastened by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of a zipper tape 15, and the piece 18 of a release tape pasted up on the liquid permeability surface sheet 2 at this time Association with a zipper tape 15 and the body 1 of a diaper becomes firm. Again A zipper tape 15 folds up the lobe 16 from the body 1 of a diaper for the field-like fastener 14 of another side, and can be engaged and tacking engaged involving the engagement member 20 in the field-like fastener 14 of another side. A zipper tape 15 can tacking do of the field-like fastener 14 of another side certainly also with the quality of the material which cannot be engaged.

[0056] And since it does not engage, damage or deform involving the liquid permeability surface sheet 2 which the field-like fastener 14 of another side established in the zipper tape 15 formed with the nonwoven fabric of the body 1 of a diaper since the zipper tape 15 was folded up and projected from the backside waist section 8 until it equipped the body with the body 1 of a diaper and the zipper tape has not projected from the body 1 of a diaper, appearance nature is not spoiled.

[0057] Moreover, in the production process of a disposable diaper, since the zipper tape 15 is not projected from the both ends of the backside waist section 8 of the body 1 of a diaper, un-arranging on manufacture by the field-like fastener 14 of another side established in the zipper tape 15 involving and engaging with the liquid permeability surface sheet 2 superfluously formed with the nonwoven fabric of the body 1 of a diaper does not arise.

[0058] In addition, although the piece 18 of a release tape of a zipper tape 15 explained the structure pasted up on the liquid permeability surface sheet 2 of the body 1 of a diaper with the gestalt of said operation, the piece 18 of a release tape can also be pasted up on front-face side sheets, such as a hydrophobic sheet, with the structure with which the body 1 of a diaper arranged front-face side sheets, such as a hydrophobic sheet, in the both-sides section of the cross direction of the liquid permeability surface sheet 2.

[0059] Next, the gestalt of other operations is explained based on drawing 4 and drawing 5.

[0060] In the configuration of the gestalt of operation shown in said drawing 1 thru/or drawing 3, the lobe 16 of said zipper tape 15 is turned up to the front-face side of the body 1 of a diaper from the edges-on-both-sides section of the backside waist section 8 of the body 1 of a diaper. Superposition, The field-like fastener 14 of another side adhered to this zipper tape 15 by tacking engaging with the engagement member 20 and the liquid permeability surface sheet 2 of the body 1 of a diaper further formed with the nonwoven fabric free [engaging and releasing] This zipper tape 15 is the configuration held at the condition that break into the front-face side of the body 1 of a diaper, and a pile does not project from the edges-on-both-sides section of the backside waist section 8 of the body 1 of a diaper.

[0061] As for the configuration of the gestalt of this operation, the backside waist section 8, the circumference section 7 of length from the crotch to the cuff, and the venter waist section 9 are continuously formed with the liquid permeability surface sheet 2 and the non-liquid-permeable nature rear-face sheet 3 which formed the body 1 of a diaper with the nonwoven fabric which arranged the absorber 4 in between.

[0062] Moreover, it receives in the non-liquid-permeable nature rear-face sheet 3 of the venter waist section 9 of this body 1 of a diaper, and one field-like fastener 13 of a hook form is formed, and the zipper tape 15 which has the lobe 16 which projects from the both-sides edge of this backside waist section 8, respectively is formed in the both-sides edge of the backside waist section 8 of said body 1 of a diaper.

[0063] The field-like fastener 14 of another side of the stop hook form of the shape of a hook which while prepared in the venter waist section 9 of said body 1 of a diaper, and engages with it free [engaging and releasing on the field-like fastener 13] has pasted the front face of the lobe 16 from the body 1 of a diaper of this zipper tape 15.

[0064] Moreover, said zipper tape 15 is formed by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of said body 1 of a diaper, and the piece 18 of a release tape pasted up on said liquid permeability surface sheet 2. While fastening the both-sides edge of the backside waist section 8 of said body 1 of a diaper by this piece 17 of a FASUNINGU tape, and the piece 18 of a release tape, the lobe 16 from the both-sides edge of this backside waist section 8 is pasted up mutually. It is located in the part pasted up on said liquid permeability surface sheet 2 in the front face of the piece 18 of a release tape of said zipper tape 15, and the engagement members 20, such as the field-like fastener 14 of said another side, a field-like fastener of the receptacle hook form in which tacking engagement is possible free [engaging and releasing], or a nonwoven fabric, are pasted up. Where the lobe 16 of said zipper tape 15 is bent and laid on top of a front-face side, tacking engagement of the field-like fastener 14 of said another side to the liquid permeability surface sheet 2 and the engagement member 20 of a nonwoven fabric of said body 1 of a diaper is enabled.

[0065] Furthermore, it gathers in the end section which turns into a point of the field-like fastener 14 of said another side in the front face of the piece 18 of a release tape of said zipper tape 15, and the piece 21 of a sheet is pasted up.

[0066] That is, after the configuration of the gestalt of operation shown in this drawing 4 and drawing 5 bent the lobe 16 of a zipper tape 15 to the front-face side and has piled it up in the configuration shown in said drawing 1 and drawing 2 , the tacking engagement to the liquid permeability surface sheet 2 and the engagement member 20 of a nonwoven fabric of said body 1 of a diaper has been attained in the field-like fastener 14 of another side, and other configurations are the same as the configuration shown in drawing 1 and drawing 2 .

[0067] Next, an operation of the gestalt of this operation is explained.

[0068] Also with the gestalt of this operation, the backside waist section 8 of the body 1 of a diaper is fastened by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of a zipper tape 15, and the piece 18 of a release tape pasted up on the liquid permeability surface sheet 2. Association with a zipper tape 15 and the body 1 of a diaper becomes firm. Again A zipper tape 15 folds up the lobe 16 from the body 1 of a diaper, and the field-like fastener 14 of another side is made as for tacking engagement to the engagement member 20 and the liquid permeability surface sheet 2 of the nonwoven fabric of the body 1 of a diaper. Since the field-like fastener 14 of this another side involves and engages [tacking] with the engagement member 20 and the liquid permeability surface sheet 2 of the nonwoven fabric of the body 1 of a diaper, it can be certainly held in the condition that a zipper tape 15 does not project from the both-sides edge of the backside waist section 8 of the body 1 of a diaper.

[0069] Other operations of the gestalt of this operation are the same as that of the gestalt of operation shown in said drawing 1 thru/or drawing 3 .

[0070] In addition, although the piece 18 of a release tape of a zipper tape 15 explained the structure pasted up on the liquid permeability surface sheet 2 formed with the nonwoven fabric of the body 1 of a diaper with the gestalt of said operation With the structure which arranged the front-face side sheet by which the body 1 of a diaper was formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 with nonwoven fabrics, such as a hydrophobic sheet The piece 18 of a release tape is pasted up on the sheet formed with the nonwoven fabric by the side of front faces, such as a hydrophobic sheet. It can also tacking engage with the nonwoven fabric sheet by the side of the front face of the body 1 of a diaper which formed the field-like fastener 14 of another side adhered to a zipper tape 15 with the engagement member 20 and the nonwoven fabric free [engaging and releasing].

[0071] Next, the manufacture approach of the disposable diaper shown in drawing 1 , drawing 2 and drawing 4 , and drawing 5 is explained based on drawing 6 .

[0072] This manufacture approach attaches the zipper tape 15 of the gestalt of operation shown in the

body 1 of a diaper which has the absorber 4 arranged between the liquid permeability surface sheet 2 shown in drawing 3, the non-liquid-permeable nature rear-face sheet 3 and this liquid permeability surface sheet 2, and the non-liquid-permeable nature rear-face sheet 3, and formed the backside waist section 8, the circumference section 7 of length from the crotch to the cuff, and the venter waist section 9 at said drawing 1 and drawing 2, and drawing 4 and drawing 5, and manufactures a disposable diaper.

[0073] (a) of drawing 6 It gathers with the field-like fastener sheet 32 of another side of a hook-like stop hook form, and a sheet 33 is pasted up on the end side of the front face of the shown FASUNINGU tape sheet 31 it is running continuously (process b). The process which pastes up the engagement member sheet 35 on the surface other end side of the release tape sheet 34 it is running continuously is followed. Where the other end side of the release tape sheet 34 on which said engagement member sheet 35 was pasted up is turned up to the front-face side by the side of an end, while pasting up the end section of this release tape sheet 34 on the front face by the side of the end of the FASUNINGU tape sheet 31 on which the field-like fastener sheet 32 of said another side was pasted up The field-like fastener sheet 32 and said engagement member sheet 35 of said another side are tacking engaged (process c).

[0074] Subsequently, the release tape sheet 34 on which the end section of said FASUNINGU tape sheet 31 and this FASUNINGU tape sheet 31 was pasted up mutually is cut by predetermined width of face with the field-like fastener sheet 32 and the engagement member sheet 35 of said another side, and a zipper tape 15 is formed by the piece 17 of a FASUNINGU tape which gathered with the field-like fastener 14 of another side, and pasted up the piece 21 of a sheet, and the piece 18 of a release tape which pasted up the engagement member 20 (process d).

[0075] Furthermore In the both ends of the backside waist section 8 of said body 1 of a diaper which shows a part for the other end of said piece 17 of a FASUNINGU tape to drawing 3 Subsequently to the process pasted up on said non-liquid-permeable nature rear-face sheet 3, where the field-like fastener 14 and the engagement member 20 of another side are tacking engaged, bend the other end side clinch section of said piece 18 of a release tape with the piece 17 of a FASUNINGU tape, and said liquid permeability surface sheet 2 is pasted. The zipper tape 15 with which the lobe 16 from said body 1 of a diaper was folded up by this piece 17 of a FASUNINGU tape and the piece 18 of a release tape is formed (process e).

[0076] in addition, in the disposable diaper of the gestalt of operation shown in said drawing 4 and drawing 5 While pasting said non-liquid-permeable nature rear-face sheet 3 in the both ends of the backside waist section 8 of said body 1 of a diaper which shows a part for the other end of the piece 17 of a FASUNINGU tape to drawing 3, where the field-like fastener 14 and the engagement member 20 of another side are tacking engaged, the other end side clinch section of said piece 18 of a release tape When it bends and said liquid permeability surface sheet 2 is pasted with the piece 17 of a FASUNINGU tape, the field-like fastener 14 or the engagement member 20 of another side involves and engages [tacking] with the liquid permeability surface sheet 2 of the body 1 of a diaper in the condition of having been tacking engaged.

[0077] Next, an operation of the gestalt of this operation is explained.

[0078] In the both ends of the backside waist section 8 of said body 1 of a diaper which shows a part for the other end of the piece 17 of a FASUNINGU tape to drawing 3 Since the other end side clinch section of the piece 18 of a release tape is bent with the piece 17 of a FASUNINGU tape where the field-like fastener 14 and the engagement member 20 of another side are tacking engaged and said liquid permeability surface sheet 2 is pasted after pasting the non-liquid-permeable nature rear-face sheet 3, as shown in drawing 2 and drawing 5 The field-like fastener 14 of another side coils around the liquid permeability surface sheet 2 formed in the condition of having attached in the body 1 of a diaper, with the engagement member 20, or this engagement member 20 and nonwoven fabric of the piece 18 of a release tape of a zipper tape 15, and a zipper tape 15 is in a tacking integrated state. A zipper tape 15 folds up a lobe 16 on the body 1 of a diaper easily and certainly, and can be pasted up.

[0079] In addition, with the configuration which arranged nonwoven fabric sheets by the side of a front face, such as a hydrophobic sheet formed in the both-sides section of the cross direction of the liquid

permeability surface sheet 2 of the body 1 of a diaper with the nonwoven fabric, the piece 18 of a release tape of a zipper tape 15 is pasted up on the nonwoven fabric sheet by the side of a front face.

[0080] Next, the gestalt of other operations of the manufacture approach of a disposable diaper is explained based on drawing 6.

[0081] It is related with manufacture of the disposable diaper which also shows the gestalt of this operation to drawing 1, drawing 2 and drawing 4, and drawing 5, and is (a) of drawing 6. The field-like fastener sheet 32 of another side of a hook-like stop hook form is pasted up on the surface end side of the shown FASUNINGU tape sheet 31 it is running continuously (process b). Subsequently, the engagement member sheet 35 is tacking engaged with the field-like fastener sheet 32 of another side adhered to said FASUNINGU tape sheet 31 it is running continuously (process f).

[0082] Next, while pasting up the end side of the release tape sheet 34 on the end section of said FASUNINGU tape sheet 31, the engagement member sheet which is tacking engaging with the field-like fastener sheet 32 of said another side is pasted up on the clinch section of this release tape sheet 34 (process g). Furthermore, a zipper tape 15 is formed by the piece 17 of a FASUNINGU tape which cut the release tape sheet 34 on which the end section of said FASUNINGU tape sheet 31 and this FASUNINGU tape sheet 31 was pasted up mutually by predetermined width of face with the field-like fastener sheet 32 and the engagement member sheet 35 of said another side, and pasted up the field-like fastener 14 of another side, and the piece 18 of a release tape which pasted up the engagement member 20 (process d).

[0083] Next, while pasting said non-liquid-permeable nature rear-face sheet 3 in the both ends of the backside waist section 8 of said body 1 of a diaper which shows a part for the other end of said piece 17 of a FASUNINGU tape to drawing 3 Where the field-like fastener 14 and the engagement member 20 of another side are tacking engaged, bend the other end side clinch section of said piece 18 of a release tape with the piece 17 of a FASUNINGU tape, and the liquid permeability surface sheet 2 of said body 1 of a diaper is pasted. The zipper tape 15 with which the lobe 16 from said body 1 of a diaper was folded up by this piece 17 of a FASUNINGU tape and the piece 18 of a release tape is formed (process e).

[0084] An operation of the gestalt of this operation is explained.

[0085] The liquid permeability surface sheet 2 and the field-like fastener 14 of another side which were formed with the engagement member 20, or this engagement member 20 and nonwoven fabric of the piece 18 of a release tape of a zipper tape 15 when attaching in the body 1 of a diaper are involved, and a zipper tape 15 is in a tacking engagement condition, and a zipper tape 15 folds up a lobe 16 on the body 1 of a diaper easily certainly, and it can hold it certainly in the condition that a zipper tape 15 does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0086] Moreover, since the engagement member sheet 35 which is tacking engaging with the field-like fastener sheet 32 of another side is pasted up on the clinch section of this release tape sheet 34 while pasting up the end side of the release tape sheet 34 on the end section of the FASUNINGU tape sheet 31, adhesion with adhesion and the piece 18 of a release tape of the piece 18 of a release tape of a zipper tape 15 and the piece 17 of a FASUNINGU tape, and the engagement member 20 is made to coincidence, and manufacture becomes easy.

[0087] In addition, with the configuration which arranged nonwoven fabric sheets by the side of a front face, such as a hydrophobic sheet formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 of the body 1 of a diaper with the nonwoven fabric, the piece 18 of a release tape of a zipper tape 15 is pasted up on the nonwoven fabric sheet by the side of a front face.

[0088] It explains that the gestalt of operation of others [diaper / following / disposable] is based on drawing 7 and drawing 8.

[0089] With the gestalt of this operation, the piece 18 of a release tape is formed in the disposable diaper shown in said drawing 1 and drawing 2 in the engagement member which can tacking engage with the field-like fastener 14 of another side.

[0090] As shown in drawing 3, the body 1 of a diaper is continuously formed in the backside waist section 8, the circumference section 7 of length from the crotch to the cuff, and the venter waist section 9 with the liquid permeability surface sheet 2 and the non-liquid-permeable nature rear-face sheet 3

which arranged the absorber 4 in between.

[0091] The field-like fastener 13 which is one side which formed this body 1 of a diaper in the non-liquid-permeable nature rear-face sheet 3 of the venter waist section 9, The zipper tape 15 which has the lobe 16 which is attached in the both-sides edge of the backside waist section 8 of said body 1 of a diaper, respectively, and projects from the both-sides edge of this backside waist section 8, It was prepared in the front face of the lobe 16 from the body 1 of a diaper of this zipper tape 15, and has the field-like fastener 14 of another side which while prepared in the venter waist section 8 of said body 1 of a diaper, and engages with it free [engaging and releasing on the field-like fastener 13].

[0092] Said zipper tape 15 is formed by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of said body 1 of a diaper, and the piece 18 of a release tape pasted up on said liquid permeability surface sheet 2. While fastening the both-sides edge of the backside waist section 8 of said body 1 of a diaper by this piece 17 of a FASUNINGU tape, and the piece 18 of a release tape, the lobe 16 from the both-sides edge of this backside waist section 8 is pasted up mutually. It forms in the engagement member which engages [tacking] the piece 18 of a release tape of this zipper tape 15 with the field-like fastener 14 of said another side where the lobe 16 of said zipper tape 15 is bent and laid on top of a front-face side.

[0093] Other configurations are the same as the configuration shown in drawing 1 and drawing 2 .

[0094] Next, an operation of the gestalt of this operation is explained.

[0095] Since the backside waist section 8 of the body 1 of a diaper is fastened by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of the body 1 of a diaper of a zipper tape 15, and the piece 18 of a release tape pasted up on the liquid permeability surface sheet 2 Association with a zipper tape 15 and the body 1 of a diaper becomes firm. Again Since the zipper tape 15 could be tacking engaged involving the piece of a release tape which folded up the lobe 16 from the body 1 of a diaper, and formed the field-like fastener 14 of another side in the engagement member and the piece of a release tape was formed in the engagement member, It is not necessary to paste up an engagement member on the piece 18 of a release tape, and it can tacking engage with the piece 18 of a release tape certainly, and the field-like fastener 14 of another side can be certainly held in the condition that a zipper tape 15 does not project from the both-sides edge of the backside waist section 8 of the body 1 of a diaper.

[0096] Other operations are the same as that of the gestalt of operation shown in said drawing 1 and drawing 2 .

[0097] In addition, although the piece 18 of a release tape of a zipper tape 15 explained the structure pasted up on the liquid permeability surface sheet 2 formed with the nonwoven fabric of the body 1 of a diaper with the gestalt of said operation, the piece 18 of a release tape is pasted up on the sheet formed with the nonwoven fabric by the side of front faces, such as a hydrophobic sheet, with the structure which arranged the front-face side sheet by which the body 1 of a diaper was formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 with nonwoven fabrics, such as a hydrophobic sheet.

[0098] Next, the gestalt of other operations of a disposable diaper is explained based on drawing 9 and drawing 10 .

[0099] It enables it to tacking engage the piece 18 of a release tape also with the liquid permeability surface sheet 2 of the nonwoven fabric of the body 1 of a diaper with the gestalt of this operation in the disposable diaper shown in said drawing 7 and drawing 8 .

[0100] The backside waist section 8, the circumference section 7 of length from the crotch to the cuff, and the venter waist section 9 are continuously formed with the liquid permeability surface sheet 2 and the non-liquid-permeable nature rear-face sheet 3 with which the body 1 of a diaper arranged the absorber 4 in between as shown in drawing 3 .

[0101] The field-like fastener 13 which is one side prepared in the non-liquid-permeable nature rear-face sheet 3 of the venter waist section 9 of this body 1 of a diaper, The zipper tape 15 which has the lobe 16 which is attached in the both-sides edge of the backside waist section 8 of said body 1 of a diaper, respectively, and projects from the both-sides edge of this backside waist section 8, It was prepared in

the front face of the lobe 16 from the body 1 of a diaper of this zipper tape 15, and has the field-like fastener 14 of another side which while prepared in the venter waist section 9 of said body 1 of a diaper, and engages with it free [engaging and releasing on the field-like fastener 13].

[0102] And the liquid permeability surface sheet 2 of said body 1 of a diaper is formed with a nonwoven fabric, and said zipper tape 15 is formed by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of said body 1 of a diaper, and the piece 18 of a release tape pasted up on said liquid permeability surface sheet 2.

[0103] Moreover, while fastening the both-sides edge of the backside waist section 8 of said body 1 of a diaper by this piece 17 of a FASUNINGU tape, and the piece 18 of a release tape, the lobe 16 from the both-sides edge of this backside waist section 8 is pasted up mutually.

[0104] And the piece 18 of a release tape of said zipper tape 15 is formed in engagement members, such as a nonwoven fabric which engages [tacking] with the field-like fastener 14 of said another side free [engaging and releasing], and where the lobe 16 of said zipper tape 15 is bent and laid on top of a front-face side, it enables tacking engagement of the field-like fastener 14 of said another side to the liquid permeability surface sheet 2 of the nonwoven fabric of said body 1 of a diaper, and the piece 18 of a release tape of an engagement member.

[0105] And other configurations are the same as the configuration shown in said drawing 1 and drawing 2.

[0106] Next, an operation of the gestalt of this operation is explained.

[0107] Since the backside waist section 8 of the body 1 of a diaper is fastened by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of a zipper tape 15, and the piece 18 of a release tape pasted up on the liquid permeability surface sheet 2 Association with a zipper tape 15 and the body 1 of a diaper becomes firm. Again A zipper tape 15 can involve and tacking engage with the piece 18 of a release tape and the liquid permeability surface sheet 2 of the nonwoven fabric of the body 1 of a diaper which folded up the lobe 16 from the body 1 of a diaper, and formed the field-like fastener 14 of another side in the engagement member. Since the piece 18 of a release tape was formed in the engagement member, it is not necessary to paste up an engagement member on the piece 18 of a release tape. Since it involves and engages with the piece 18 of a release tape, and the liquid permeability surface sheet 2 of the nonwoven fabric of the body 1 of a diaper, the field-like fastener 14 of another side can be certainly held in the condition that a zipper tape 15 does not project from the both-sides edge of the backside waist section 8 of the body 1 of a diaper.

[0108] Other operations are the same as that of the gestalt of operation shown in said drawing 1 and drawing 2.

[0109] In addition, although the piece 18 of a release tape of a zipper tape 15 explained the structure pasted up on the liquid permeability surface sheet 2 formed with the nonwoven fabric of the body 1 of a diaper with the gestalt of said operation, the piece 18 of a release tape is pasted up on the sheet formed with the nonwoven fabric by the side of front faces, such as a hydrophobic sheet, with the structure which arranged the front-face side sheet by which the body 1 of a diaper was formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 with nonwoven fabrics, such as a hydrophobic sheet.

[0110] Next, how to manufacture the disposable diaper of the gestalt of operation shown in drawing 7, drawing 8 and drawing 9, and drawing 10 is explained based on drawing 6.

[0111] Drawing 6 (a) The field-like fastener sheet 32 of another side is pasted up on the surface end side of the FASUNINGU tape sheet 31 it is running continuously so that it may be shown (process b). It ranks second. It continues. Where the other end side of the engagement member sheet 35 which engages [tacking] with the field-like fastener sheet 32 of another side of the stop hook form of the shape of a hook it is running is turned up to the front-face side by the side of an end, the end section of this engagement member sheet 35 the field-like fastener sheet 32 of said another side The other end is tacking engaged with the field-like fastener sheet 32 of said another side while pasting the front face by the side of the end of the pasted-up FASUNINGU tape sheet 31 (process h).

[0112] Subsequently, a fastener tape 15 is formed by the piece 17 of a FASUNINGU tape which cut the

engagement member sheet 35 on which the end section of said FASUNINGU tape sheet 31 and this FASUNINGU tape sheet 31 was pasted up mutually by predetermined width of face with the field-like fastener sheet 32 of said another side, and pasted up the field-like fastener 14 of another side, and the piece 18 of a release tape formed in the engagement member (process i).

[0113] A part for the other end of said piece 17 of a FASUNINGU tape with moreover, the process pasted up on said non-liquid-permeable nature rear-face sheet 3 in the both ends of the backside waist section 8 of said body 1 of a diaper Bend the other end side clinch section of said piece 18 of a release tape with the piece 17 of a FASUNINGU tape in the condition of having tacking engaged with the field-like fastener 14 of another side, and said liquid permeability surface sheet 2 is pasted. The zipper tape 15 with which the lobe 16 from said body 1 of a diaper was folded up by this piece 17 of a FASUNINGU tape and the piece 18 of a release tape is formed (process j).

[0114] Other approaches are the same as the approach shown in said drawing 6 .

[0115] An operation of the gestalt of this operation is explained.

[0116] By being attached in the body 1 of a diaper, the field-like fastener 14 of another side is involved in the piece 18 of a release tape of a zipper tape 15, and a zipper tape 15 is in an engagement condition. It will be in the tacking engagement condition that the piece 18 of a release tape and the field-like fastener 14 of another side were involved where a zipper tape 15 is attached in the body 1 of a diaper. A zipper tape 15 folds up a lobe 16 on the body 1 of a diaper easily certainly, and can hold it certainly in the condition that a zipper tape 15 does not project from the both-sides edge of the backside waist section 8 of the body 1 of a diaper.

[0117] Moreover, the process which pastes up an engagement member on the piece 18 of a release tape of a zipper tape 15 is not needed, but manufacture becomes easy.

[0118] In addition, with the configuration which arranged nonwoven fabric sheets by the side of a front face, such as a hydrophobic sheet formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 of the body 1 of a diaper with the nonwoven fabric, the piece 18 of a release tape of a zipper tape 15 is pasted up on the nonwoven fabric sheet by the side of a front face.

[0119]

[Effect of the Invention] According to invention according to claim 1, association with a zipper tape and the body of a diaper becomes firm. Moreover, a zipper tape folds up the lobe from the body of a diaper, and tacking engagement can do the field-like fastener of another side involving an engagement member. Until, as for a zipper tape, it equips the body with the body of a diaper by the ability of tacking engagement doing a zipper tape certainly also with the quality of the material with which a field-like fastener cannot tacking engage Since it is folded up and has not projected from the backside waist section of the body of a diaper, the field-like fastener of another side established in the zipper tape is engaged involving the liquid permeability surface sheet formed with the nonwoven fabric of the body of a diaper etc., and damage, or Appearance nature by having not deformed and the zipper tape having projected is not spoiled.

[0120] Moreover, also in the production process of a disposable diaper, since the zipper tape is not projected from the both ends of the backside waist section of the body of a diaper, the field-like fastener of another side established in the zipper tape is engaged involving the liquid permeability surface sheet superfluously formed with the nonwoven fabric of the body of a diaper, and manufacture becomes impossible.

[0121] According to invention according to claim 2, association with a zipper tape and the body of a diaper becomes firm. Moreover, a zipper tape folds up the lobe from the body of a diaper, and can be tacking engaged involving the liquid permeability surface sheet of the nonwoven fabric of an engagement member and the body of a diaper etc. in the field-like fastener of another side. It can be certainly tacking engaged also with the quality of the material with which a field-like fastener cannot engage, and since the field-like fastener of this another side involves and engages with an engagement member and the nonwoven fabric sheet by the side of the front face of the body of a diaper, it can be certainly held in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0122] According to invention according to claim 3, association with a zipper tape and the body of a diaper becomes firm. Moreover, since the zipper tape could be tacking engaged involving the piece of a release tape which folded up the lobe from the body of a diaper and formed the field-like fastener of another side in the engagement member and the piece of a release tape was formed in the engagement member, It is not necessary to paste up an engagement member on the piece of a release tape, and it can tacking engage with the piece of a release tape certainly, and the field-like fastener of another side can be certainly held in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0123] According to invention according to claim 4, association with a zipper tape and the body of a diaper becomes firm. Moreover, a zipper tape can involve and engage with the piece of a release tape which folded up the lobe from the body of a diaper and formed the field-like fastener of another side in the engagement member, and the front-face side nonwoven fabric sheet of the body of a diaper. Since the piece of a release tape was formed in the engagement member, it is not necessary to paste up an engagement member on the piece of a release tape. It involves and engages [tacking] with the piece of a release tape, and the nonwoven fabric sheet by the side of the front face of the body of a diaper, and the field-like fastener of another side can be certainly held in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0124] According to invention according to claim 5, the liquid permeability surface sheet and the field-like fastener of another side which were formed in the condition of having attached in the body of a diaper, with an engagement member, or this engagement member and nonwoven fabric of the piece of a release tape of a zipper tape are involved, and a zipper tape is in a tacking engagement condition. It will be in the tacking engagement condition that the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape, or this engagement member and a front face and the field-like fastener of another side were involved where a zipper tape is attached in the body of a diaper. A zipper tape folds up a lobe on the body of a diaper easily certainly, and can be pasted up.

[0125] According to invention according to claim 6, by attaching in the body of a diaper, the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape of a zipper tape, or this engagement member and a front face and the field-like fastener of another side are involved, and a zipper tape is in an engagement condition. It will be in the tacking engagement condition that the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape, or this engagement member and a front face and the field-like fastener of another side were involved where a zipper tape is attached in the body of a diaper. A zipper tape folds up a lobe on the body of a diaper easily certainly, and can hold it certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0126] Moreover, adhesion with adhesion and the piece of a release tape of the piece of a release tape of a zipper tape and the piece of a FASUNINGU tape, and an engagement member is made to coincidence, and manufacture becomes easy.

[0127] According to invention according to claim 7, by attaching in the body of a diaper, the field-like fastener of another side is involved in the piece of a release tape of a zipper tape, and a zipper tape is in an engagement condition. Will be in the tacking engagement condition that the piece of a release tape and the field-like fastener of another side were involved where a zipper tape is attached in the body of a diaper, and a zipper tape will fold up a lobe on the body of a diaper easily certainly. It can hold certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0128] Moreover, the process which pastes up an engagement member on the piece of a release tape of a zipper tape is not needed, but manufacture becomes easy.

[Translation done.]

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TECHNICAL FIELD

[Field of the Invention] This invention relates to the disposable diaper and its manufacture approaches the object for infants which has a zipper tape, the object for adults, for incontinentia, etc., and relates to the zipper tape used when equipping with a diaper especially.

[Translation done.]

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PRIOR ART

[Description of the Prior Art] The structure which while was prepared in the venter waist section, and this conventional kind of disposable diaper engages with a field-like fastener the field-like fastener of another side of a zipper tape established in the both ends of the backside waist section free [engaging and releasing] in the body of a diaper in which the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section were formed, and equipped the body with the body of a diaper is taken.

[0003] And when equipping, and the field-like fastener of another side established in the zipper tape might be engaged involving the liquid permeability surface sheet formed with the nonwoven fabric of the body of a diaper, and it might damage, it might deform and the zipper tape has projected, there is [if it changes into the condition / that the zipper tape prepared in the both ends of the backside waist section is projected from the both ends of the backside waist section in such a disposable diaper / ,] a problem which spoils appearance nature.

[0004] Moreover, also in the production process of a disposable diaper, it the zipper tape is projected from the both ends of the backside waist section of the body of a diaper, the field-like fastener of another side established in the zipper tape is engaged involving the liquid permeability surface sheet superfluously formed with the nonwoven fabric of the body of a diaper, and manufacture becomes impossible.

[0005] Then, it is made not to project from the body of a diaper by folding up conventionally the part projected from the both ends of the backside waist section of the body of a diaper of a zipper tape. As it is indiscriminately involved in the sheet by the side of the front face formed with the nonwoven fabric of the body of a diaper and does not engage with it, prevent breakage of a zipper tape, and deformation, make appearance nature good, and raise salability, and it also sets to a production process. As debt engagement of the zipper tape is not carried out indiscriminately, it can be made to do manufacture certainly.

[0006] And fastening adhesion of the piece of a FASUNINGU tape and the piece of a release tape of a zipper tape is conventionally carried out to the both ends of the backside waist section of the body of a diaper, the adhesives for [tacking] are applied to the lobe of a zipper tape, and the structure which folds up the lobe of this zipper tape and is pasted up on the body of a diaper with the adhesives for [temporary tacking] is known.

[0007] Moreover, in the backside waist section of the body of a diaper, a zipper tape is put between a liquid permeability surface sheet and a non-liquid-permeable nature rear-face sheet, it pastes up, and the structure which the field-like fastener which folded up the lobe of this zipper tape and was formed in this lobe is made to involve and engage with front-face side sheets, such as a liquid permeability surface sheet formed with the nonwoven fabric of the body of a diaper, and carries out tacking of the zipper tape is known.

[0008] Furthermore, a field-like fastener is formed in a lobe from the both ends of the backside waist section of the zipper tape pasted up on the non-liquid-permeable nature rear-face sheet in the backside waist section of the body of a diaper, and the structure which fold up the lobe of this zipper tape, and the

field-like fastener of a lobe is made to involve and engage with the front-face side sheet formed with the nonwoven fabric of the body of a diaper, and carries out tacking of the zipper tape is known.

[0009] Moreover, the manufacture approach which the field-like fastener which folds up the lobe from the backside waist section of the body of a diaper of the zipper tape which pasted up the zipper tape with which the field-like fastener was attached in the zipper tape, and this field-like fastener was attached in order to have attached the zipper tape in the body of a diaper conventionally on the body of a diaper, and was pasted up on this body of a diaper, and be formed in this lobe be made to involve and engage with the front-face side sheet formed with the nonwoven fabric of body of a diaper, and carries out tacking of the zipper tape be taken.

[Translation done.]

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EFFECT OF THE INVENTION

[Effect of the Invention] According to invention according to claim 1, association with a zipper tape and the body of a diaper becomes firm. Moreover, a zipper tape folds up the lobe from the body of a diaper, and tacking engagement can do the field-like fastener of another side involving an engagement member. Until, as for a zipper tape, it equips the body with the body of a diaper by the ability of tacking engagement doing a zipper tape certainly also with the quality of the material with which a field-like fastener cannot tacking engage Since it is folded up and has not projected from the backside waist section of the body of a diaper, the field-like fastener of another side established in the zipper tape is engaged involving the liquid permeability surface sheet formed with the nonwoven fabric of the body of a diaper etc., and damage, or Appearance nature by having not deformed and the zipper tape having projected is not spoiled.

[0120] Moreover, also in the production process of a disposable diaper, since the zipper tape is not projected from the both ends of the backside waist section of the body of a diaper, the field-like fastener of another side established in the zipper tape is engaged involving the liquid permeability surface sheet superfluously formed with the nonwoven fabric of the body of a diaper, and manufacture becomes impossible.

[0121] According to invention according to claim 2, association with a zipper tape and the body of a diaper becomes firm. Moreover, a zipper tape folds up the lobe from the body of a diaper, and can be tacking engaged involving the liquid permeability surface sheet of the nonwoven fabric of an engagement member and the body of a diaper etc. in the field-like fastener of another side. It can be certainly tacking engaged also with the quality of the material with which a field-like fastener cannot engage, and since the field-like fastener of this another side involves and engages with an engagement member and the nonwoven fabric sheet by the side of the front face of the body of a diaper, it can be certainly held in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0122] According to invention according to claim 3, association with a zipper tape and the body of a diaper becomes firm. Moreover, since the zipper tape could be tacking engaged involving the piece of a release tape which folded up the lobe from the body of a diaper and formed the field-like fastener of another side in the engagement member and the piece of a release tape was formed in the engagement member, It is not necessary to paste up an engagement member on the piece of a release tape, and it can tacking engage with the piece of a release tape certainly, and the field-like fastener of another side can be certainly held in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0123] According to invention according to claim 4, association with a zipper tape and the body of a diaper becomes firm. Moreover, a zipper tape can involve and engage with the piece of a release tape which folded up the lobe from the body of a diaper and formed the field-like fastener of another side in the engagement member, and the front-face side nonwoven fabric sheet of the body of a diaper. Since the piece of a release tape was formed in the engagement member, it is not necessary to paste up an engagement member on the piece of a release tape. It involves and engages [tacking] with the piece of

a release tape, and the nonwoven fabric sheet by the side of the front face of the body of a diaper, and the field-like fastener of another side can be certainly held in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0124] According to invention according to claim 5, the liquid permeability surface sheet and the field-like fastener of another side which were formed in the condition of having attached in the body of a diaper, with an engagement member, or this engagement member and nonwoven fabric of the piece of a release tape of a zipper tape are involved, and a zipper tape is in a tacking engagement condition. It will be in the tacking engagement condition that the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape, or this engagement member and a front face and the field-like fastener of another side were involved where a zipper tape is attached in the body of a diaper. A zipper tape folds up a lobe on the body of a diaper easily certainly, and can be pasted up.

[0125] According to invention according to claim 6, by attaching in the body of a diaper, the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape of a zipper tape, or this engagement member and a front face and the field-like fastener of another side are involved, and a zipper tape is in an engagement condition. It will be in the tacking engagement condition that the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape, or this engagement member and a front face and the field-like fastener of another side were involved where a zipper tape is attached in the body of a diaper. A zipper tape folds up a lobe on the body of a diaper easily certainly, and can hold it certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0126] Moreover, adhesion with adhesion and the piece of a release tape of the piece of a release tape of a zipper tape and the piece of a FASUNINGU tape, and an engagement member is made to coincidence, and manufacture becomes easy.

[0127] According to invention according to claim 7, by attaching in the body of a diaper, the field-like fastener of another side is involved in the piece of a release tape of a zipper tape, and a zipper tape is in an engagement condition. Will be in the tacking engagement condition that the piece of a release tape and the field-like fastener of another side were involved where a zipper tape is attached in the body of a diaper, and a zipper tape will fold up a lobe on the body of a diaper easily certainly. It can hold certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0128] Moreover, the process which pastes up an engagement member on the piece of a release tape of a zipper tape is not needed, but manufacture becomes easy.

[Translation done.]

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] Although the installation reinforcement of a zipper tape increases, when engaging and releasing of a zipper tape repeats on the body of a diaper with tacking adhesives with the structure which folds up and carries out temporary adhesion of the lobe of a zipper tape, with the structure which carries out fastening adhesion of the above-mentioned conventional body of a diaper in the piece of a FASUNINGU tape and the piece of a release tape of a zipper tape, folds up the lobe of a zipper tape with the adhesives for [tacking] formed in the lobe of a zipper tape and carries out temporary adhesion at the body of a diaper, has the problem to which the tacking adhesive strength of adhesives falls

[0011] Then, if it is the structure which replaced with the adhesives tacking pasted up on the body of a diaper at a zipper tape, and formed the field-like fastener, since engagement of a field-like fastener is impossible involving the piece of a release tape, it has the problem which cannot do eye tacking.

[0012] Moreover, put a zipper tape between the liquid permeability surface sheet of the body of a diaper, and a non-liquid-permeable nature rear-face sheet, and it pastes up. The structure which the field-like fastener formed in the lobe of this zipper tape is made to involve and engage with the liquid permeability surface sheet of the body of a diaper, and carries out tacking of the zipper tape, Or a zipper tape is pasted up on the non-liquid-permeable nature rear-face sheet of the body of a diaper. With the structure which fold up the lobe of this zipper tape, and the field-like fastener of a lobe is made to involve and engage with the liquid permeability surface sheet of the body of a diaper, and carries out tacking of the zipper tape The installation reinforcement of the body of a diaper and a zipper tape is weak, and it has the problem on which a zipper tape may fracture and separate from the body of a diaper at the time of use.

[0013] Furthermore, after attaching a zipper tape in the above-mentioned conventional body of a diaper, by the approach of folding up a zipper tape and tacking carrying out of the field-like fastener to the body of a diaper, after attaching a zipper tape in the body of a diaper, a zipper tape must be folded up, a field-like fastener must be involved and engaged, and it has the problem from which folding of a zipper tape tends to become uncertainty.

[0014] This invention was made in view of the above-mentioned trouble, association with the body of a diaper and a zipper tape is strong, and eye fold-up tacking of a zipper tape offers the positive disposable diaper made easily and its manufacture approach.

[Translation done.]

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MEANS

[Means for Solving the Problem] The body of a diaper which the disposable diaper of invention according to claim 1 has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The engagement member which engages [tacking] with the field-like fastener of said another side free [engaging and releasing] where the lobe of said zipper tape is bent and laid on top of a front-face side is pasted up on the front face of the part pasted up on said front-face side sheet of said piece of a release tape.

[0016] And since the backside waist section of the body of a diaper is fastened by the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of a zipper tape, and the piece of a release tape pasted up on front-face side sheets, such as a liquid permeability surface sheet Association with a zipper tape and the body of a diaper becomes firm, and a zipper tape folds up the lobe from the body of a diaper, and can be engaged involving an engagement member in the field-like fastener of another side. It can be certainly tacking engaged also with the quality of the material with which a field-like fastener cannot engage, and can hold certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0017] The disposable diaper of invention according to claim 2 has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and forms a front-face side with a nonwoven fabric sheet. The backside waist section, The body of a diaper which formed the circumference section of length from the crotch to the cuff, and the venter waist section continuously, and the field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a

diaper, and the piece of a release tape pasted up on the nonwoven fabric sheet by the side of said front face. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The engagement member which is located in the part pasted up on the nonwoven fabric sheet by the side of said front face, and engages [tacking] with the field-like fastener of said another side free [engaging and releasing] is pasted up on the front face of the piece of a release tape of said zipper tape. Where the lobe of said zipper tape is bent and laid on top of a front-face side, tacking engagement of the field-like fastener of said another side to the nonwoven fabric sheet and engagement member by the side of the front face of said body of a diaper is enabled.

[0018] And since the backside waist section of the body of a diaper is fastened by the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of a zipper tape, and the piece of a release tape pasted up on the nonwoven fabric sheet by the side of a front face Association with a zipper tape and the body of a diaper becomes firm, and a zipper tape folds up the lobe from the body of a diaper, and can involve and engage the field-like fastener of another side with an engagement member and the nonwoven fabric sheet by the side of the front face of the body of a diaper. It can be certainly tacking engaged also with the quality of the material with which a field-like fastener cannot engage, and since the field-like fastener of this another side involves and engages with an engagement member and the nonwoven fabric sheet by the side of the front face of the body of a diaper, it can be certainly held in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0019] The disposable diaper of invention according to claim 3 has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and forms a front-face side with a nonwoven fabric sheet. The backside waist section, The body of a diaper which formed the circumference section of length from the crotch to the cuff, and the venter waist section continuously, and the field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. This piece of a release tape is formed in the engagement member which engages [tacking] with the field-like fastener of said another side. Where the lobe of said zipper tape is bent and laid on top of a front-face side, the piece of a release tape of this zipper tape is tacking engaged with the field-like fastener of said another side.

[0020] And since the backside waist section of the body of a diaper is fastened by the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of a zipper tape, and the piece of a release tape pasted up on the liquid permeability surface sheet It can be engaged involving the piece of a release tape which association with a zipper tape and the body of a diaper became firm, and folded up the lobe from the body of a diaper of a zipper tape, and formed the field-like fastener of another side in the engagement member. Since the piece of a release tape was formed in the engagement member, it is not necessary to paste up an engagement member on the piece of a release tape. It can tacking engage with the piece of a release tape certainly, and the field-like fastener of another side can be certainly held in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0021] The disposable diaper of invention according to claim 4 has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and

forms a front-face side with a nonwoven fabric sheet. The backside waist section, The body of a diaper which formed the circumference section of length from the crotch to the cuff, and the venter waist section continuously, and the field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The piece of a release tape of said zipper tape is formed in the engagement member which engages [tacking] with the field-like fastener of said another side free [engaging and releasing]. Where the lobe of said zipper tape is bent and laid on top of a front-face side, tacking engagement of the field-like fastener of said another side to the nonwoven fabric sheet by the side of the front face of said body of a diaper and the piece of a release tape of an engagement member is enabled.

[0022] And since the backside waist section of the body of a diaper is fastened by the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of a zipper tape, and the piece of a release tape pasted up on the nonwoven fabric sheet by the side of a front face Association with a zipper tape and the body of a diaper becomes firm, and a zipper tape can involve and engage with the piece of a release tape which folded up the lobe from the body of a diaper and formed the field-like fastener of another side in the engagement member, and the sheet of the nonwoven fabric by the side of the front face of the body of a diaper. Since it is not necessary to paste up an engagement member on the piece of a release tape since the piece of a release tape was formed in the engagement member, and the field-like fastener of another side involves and engages with the piece of a release tape, and the nonwoven fabric sheet by the side of the front face of the body of a diaper, It can hold certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0023] The manufacture approach of the disposable diaper invention according to claim 5 The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The lobe of said zipper tape To a front-face side In the condition of having bent and piled up, the field-like fastener of said another side Or it is the manufacture approach of a disposable diaper of having pasted up the engagement member which engages [tacking] with the field-like fastener of this another side, and the nonwoven fabric sheet by the side of a front face free [engaging and releasing] on the front face of the part pasted up on the sheet by the side of said front face of said piece of a release tape.

[0024] The process which pastes up the field-like fastener sheet of another side on the surface end side

of the FASUNINGU tape sheet as for which the manufacture approach of this disposable diaper is running continuously, The process which pastes up an engagement member sheet on the surface other end side of the release tape sheet it is running continuously, Where the other end side of the release tape sheet on which said engagement member sheet was pasted up is turned up to the front-face side by the side of an end, while pasting up the end section of this release tape sheet on the front face by the side of the end of the FASUNINGU tape sheet on which the field-like fastener sheet of said another side was pasted up The process tacking engaged in the field-like fastener sheet and said engagement member sheet of said another side, The release tape sheet on which the end section of said FASUNINGU tape sheet and this FASUNINGU tape sheet was pasted up mutually with the field-like fastener sheet and engagement member sheet of said another side The process which forms a zipper tape in the piece of a FASUNINGU tape which cut by predetermined width of face and pasted up the field-like fastener of another side, and the piece of a release tape which pasted up the engagement member, The process which pastes up a part for the other end of said piece of a FASUNINGU tape on said non-liquid-permeable nature rear-face sheet in the both ends of the backside waist section of said body of a diaper, Where the field-like fastener and engagement member of another side are tacking engaged, bend the other end side clinch section of said piece of a release tape with the piece of a FASUNINGU tape, and said front-face side sheet is pasted. It has the process which forms the zipper tape with which the lobe from said body of a diaper was folded up in this piece of a FASUNINGU tape, and the piece of a release tape.

[0025] And the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape of a zipper tape, or this engagement member and a front face and the field-like fastener of another side are involved in the condition of having attached in the body of a diaper, and a zipper tape is in a tacking engagement condition. It will be in the tacking engagement condition that the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape, or this engagement member and a front face and the field-like fastener of another side were involved where a zipper tape is attached in the body of a diaper. A zipper tape folds up a lobe on the body of a diaper easily certainly, and can be pasted up.

[0026] The manufacture approach of the disposable diaper invention according to claim 6 The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, Are prepared in the front face of the lobe from the body of a diaper of this zipper tape, and while prepared in the venter waist section of said body of a diaper, and it has the field-like fastener of another side which engages with a field-like fastener free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on the front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. The lobe of said zipper tape To a front-face side In the condition of having bent and piled up, the field-like fastener of said another side Or it is the manufacture approach of a disposable diaper of having pasted up the engagement member which engages [tacking] with said front-face side sheet formed with the field-like fastener and nonwoven fabric of this another side free [engaging and releasing] on the front face of the part pasted up on said front-face side sheet of said piece of a release tape.

[0027] The process which pastes up the field-like fastener sheet of another side on the surface end side of the FASUNINGU tape sheet as for which the manufacture approach of this disposable diaper is running continuously, The process which engages [tacking] an engagement member sheet with the field-like fastener sheet of another side adhered to said FASUNINGU tape sheet it is running

continuously, The process which pastes up said engagement member sheet on the clinch section of this release tape sheet while pasting up the end side of a release tape sheet on the end section of said FASUNINGU tape sheet, The release tape sheet on which the end section of said FASUNINGU tape sheet and this FASUNINGU tape sheet was pasted up mutually with the field-like fastener sheet and engagement member sheet of said another side The process which forms a zipper tape in the piece of a FASUNINGU tape which cut by predetermined width of face and pasted up the field-like fastener of another side, and the piece of a release tape which pasted up the engagement member, The process which pastes up a part for the other end of said piece of a FASUNINGU tape on said non-liquid-permeable nature rear-face sheet in the both ends of the backside waist section of said body of a diaper, Where the field-like fastener and engagement member of another side are tacking engaged, bend the other end side clinch section of said piece of a release tape with the piece of a FASUNINGU tape, and said front-face side sheet is pasted. It has the process which forms the zipper tape with which the lobe from said body of a diaper was folded up in this piece of a FASUNINGU tape, and the piece of a release tape.

[0028] And by attaching in the body of a diaper, the nonwoven fabric sheet by the side of the engagement member of the piece of a release tape of a zipper tape, or this engagement member and a front face and the field-like fastener of another side are involved, and a zipper tape is in an engagement condition. It will be in the tacking engagement condition that the liquid permeability surface sheet and the field-like fastener of another side which were formed with an engagement member, or this engagement member and nonwoven fabric of the piece of a release tape where a zipper tape is attached in the body of a diaper were involved. A zipper tape folds up a lobe on the body of a diaper easily certainly, and can hold it certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0029] Moreover, adhesion with adhesion and the piece of a release tape of the piece of a release tape of a zipper tape and the piece of a FASUNINGU tape, and an engagement member is made to coincidence, and manufacture becomes easy.

[0030] The manufacture approach of the disposable diaper invention according to claim 7 The body of a diaper which has the liquid permeability surface sheet and non-liquid-permeable nature rear-face sheet which arranged the absorber in between at least, and formed the backside waist section, the circumference section of length from the crotch to the cuff, and the venter waist section continuously, The field-like fastener which is one side prepared in the non-liquid-permeable nature rear-face sheet of the venter waist section of this body of a diaper, The zipper tape which has the lobe which is attached in the both-sides edge of the backside waist section of said body of a diaper, respectively, and projects from the both-sides edge of this backside waist section, It is prepared in the front face of the lobe from the body of a diaper of this zipper tape, and has the field-like fastener of another side which engages with the front-face side sheet which while prepared in the venter waist section of said body of a diaper, and was formed in it with the field-like fastener or the field-like fastener of one of these, and the nonwoven fabric free [engaging and releasing]. Said zipper tape is formed in the piece of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet of said body of a diaper, and the piece of a release tape pasted up on said front-face side sheet. While fastening the both-sides edge of the backside waist section of said body of a diaper in this piece of a FASUNINGU tape, and the piece of a release tape, the lobe from the both-sides edge of this backside waist section is pasted up mutually. Where the lobe of said zipper tape is bent and laid on top of a front-face side, it is the manufacture approach of the disposable diaper which formed the piece of a release tape of this zipper tape in the engagement member which engages [tacking] with the field-like fastener of said another side.

[0031] The process which pastes up the field-like fastener sheet of another side on the surface end side of the FASUNINGU tape sheet as for which the manufacture approach of this disposable diaper is running continuously, It continues. Where the other end side of the engagement member sheet which engages [tacking] with the field-like fastener sheet of said another side it is running is turned up to the front-face side by the side of an end, while pasting up the end section of this engagement member sheet

on the front face by the side of the end of the FASUNINGU tape sheet on which the field-like fastener sheet of said another side was pasted up The process which engages [tacking] the other end with the field-like fastener sheet of said another side, The engagement member sheet on which the end section of said FASUNINGU tape sheet and this FASUNINGU tape sheet was pasted up mutually with the field-like fastener sheet of said another side The process which forms a zipper tape in the piece of a FASUNINGU tape which cut by predetermined width of face and pasted up the field-like fastener of another side, and the piece of a release tape formed in the engagement member, The process which pastes up a part for the other end of said piece of a FASUNINGU tape on said non-liquid-permeable nature rear-face sheet in the both ends of the backside waist section of said body of a diaper, Bend the other end side clinch section of said piece of a release tape with the piece of a FASUNINGU tape in the condition of having tacking engaged with the field-like fastener of another side, and said front-face side sheet is pasted. It has the process which forms the zipper tape with which the lobe from said body of a diaper was folded up in this piece of a FASUNINGU tape, and the piece of a release tape.

[0032] And the field-like fastener of another side is involved in the piece of a release tape of a zipper tape by attaching in the body of a diaper, a zipper tape is in an engagement condition, it will be in the tacking engagement condition that the piece of a release tape and the field-like fastener of another side were involved where a zipper tape is attached in the body of a diaper, and a lobe can be folded up on the body of a diaper easily certainly, and a zipper tape can hold it certainly in the condition that a zipper tape does not project from the both-sides edge of the backside waist section of the body of a diaper.

[0033] Moreover, the process which pastes up an engagement member on the piece of a release tape of a zipper tape is not needed, but manufacture becomes easy.

[0034]

[Embodiment of the Invention] Next, the configuration of one gestalt of operation of the disposable diaper of this invention is explained with reference to drawing 1 thru/or drawing 3 .

[0035] In drawing 1 thru/or drawing 3 , 1 is a body of a diaper. This body 1 of a diaper The absorber 4 which has liquid absorptivity is arranged between the liquid permeability surface sheet 2 which has liquid permeability, and the non-liquid-permeable nature rear-face sheet 3 which has liquid impermeability. This body 1 of a diaper While forming the center section of the longitudinal direction in the configuration of the abbreviation symmetry as a core with approximately long-shaped in the state of expansion, it is formed in the configuration of bilateral symmetry centering on the crosswise center section.

[0036] And concave arc-like marginal 4a which concave arc-like marginal 1a which cut in the shape of an abbreviation concave arc towards the method of inside, and was lacked was formed so that the pars intermedia of a longitudinal direction might become narrow [-like], and the pars intermedia of a longitudinal direction also turned off said absorber 4 in the shape of an abbreviation concave arc towards the method of inside so that it might become narrow [-like], and the liquid permeability surface sheet 2 of said body 1 of a diaper and the non-liquid-permeable nature rear-face sheet 3 lacked is formed.

[0037] Moreover, said liquid permeability surface sheet 2 has liquid permeability in order to make elimination physiology liquid, such as urine, penetrate to said absorber 4, for example, it is formed with the cheesecloth, the nonwoven fabric, the porous film, the synthetic fiber, etc.

[0038] Moreover, said non-liquid-permeable nature rear-face sheet 3 had liquid impermeability so that other clothing, such as underwear, or a sheet might not be soiled, for example, it was fabricated with synthetic-resin sheets, such as polyethylene resin, etc., and the periphery section has pasted it up on the periphery section of said liquid permeability surface sheet 2.

[0039] Said absorber 4 is cast in the shape of an approximately long rectangle, and it is arranged so that concave arc-like marginal 1a of this liquid permeability surface sheet 2 and the non-liquid-permeable nature rear-face sheet 3 may be countered and concave arc-like marginal 4a of the pars intermedia of a longitudinal direction may be located between said liquid permeability surface sheet 2 and the non-liquid-permeable nature rear-face sheet 3. Moreover, this absorber 4 elimination physiology liquid, such as urine, is boiled, it can absorb, for example, pulp is fabricated with the ingredient which contained matter, such as a high-polymer absorbent, in the part as a charge of a principal member.

[0040] And it is located in the outside of said absorber 4, and the flap section 5 is formed with said liquid permeability surface sheet 2 and said non-liquid-permeable nature rear-face sheet 3.

[0041] Furthermore, the polymerization of the hydrophobic sheet 6 which had for example, formed in right and left of the front face of the liquid permeability surface sheet 2 of said body 1 of a diaper the property which does not permeate elimination physiology liquid, such as urine, from said flap section 5 to pars intermedia with non-liquid-permeable nature ingredients, such as polypropylene resin, is carried out, and the center section of the liquid permeability surface sheet 2 is exposed between the inside edges of the hydrophobic sheet 6 of these right and left. And this hydrophobic sheet 6 was formed in the shape of [which the radial border of the pars intermedia of a longitudinal direction cut in the shape of an abbreviation concave arc, and lacked toward the inner direction according to the liquid permeability surface sheet 2] an approximately long rectangle, and the radial-border section of the inferior surface of tongue of this hydrophobic sheet 6 has pasted it up on the periphery section of said liquid permeability surface sheet 2.

[0042] Next, said body 1 of a diaper is that with which is bent from the expansion condition shown in drawing 3 , and the body is equipped. The backside waist section 8 located in the end side of the longitudinal direction of the circumference section 7 of length from the crotch to the cuff located in the length from the crotch to the cuff of the pars intermedia of the longitudinal direction in an expansion condition and the circumference section 7 of this length from the crotch to the cuff at a back side at the time of wearing in the body is formed in one. And the venter waist section 9 located in a venter at the other end side of the longitudinal direction of the circumference section 7 of said length from the crotch to the cuff is formed in one.

[0043] Moreover, the circumference section 10 of a foot in alignment with concave arc-like marginal 1a of crosswise edges on both sides is formed in the both-sides center section of the circumference section 7 of said length from the crotch to the cuff. The flap elastic body 11 of the shape of **** formed in the circumference section 10 of this foot with 1 or two or more rubber is arranged along with the longitudinal direction of said body 1 of a diaper between said liquid permeability surface sheet 2 and said non-liquid-permeable nature rear-face sheet 3, and the circumference gathers section 12 of a foot is formed in the flap section 5 of the both-sides section of said absorber 4 with this flap elastic body 11.

[0044] And it receives in the abbreviation center section of the venter waist section 9 of said non-liquid-permeable nature rear-face sheet 3, and one field-like fastener 13 of a hook form is attached by adhesion or attaching by sewing.

[0045] Moreover, the zipper tape 15 on which the field-like fastener 14 of another side of the stop hook form of the shape of a hook engaged free [engaging and releasing on one / said / field-like fastener 13] was pasted up is attached in the both ends of the cross direction of the backside waist section 8 of said liquid permeability surface sheet 2.

[0046] Said zipper tape 15 had the lobe 16 which projects from the both-sides edge of said backside waist section, and the field-like fastener 14 of said another side has pasted it up on the end section of the front face which becomes in the lobe 16 of this zipper tape 15 the same field side as the field by the side of said liquid permeability surface sheet 2.

[0047] And the zipper tape 15 which the field-like fastener 14 of said another side has pasted up on said end section It is formed by the piece 17 of a FASUNINGU tape which the other end pasted up on said non-liquid-permeable nature rear-face sheet 3, and the piece 18 of a release tape which the other end pasted up on said liquid permeability surface sheet 2. While fastening the backside waist section 8 of said body 1 of a diaper from an external surface side in the other end of said piece 17 of a FASUNINGU tape, and the other end of the piece 18 of a release tape, the end section used as the lobe 16 from this backside waist section 8 is pasted up mutually.

[0048] Moreover, the field-like fastener 14 of said another side established in the lobe 16 of said zipper tape 15 was involved, and the engagement members 20, such as a field-like fastener of the receptacle hook form in which tacking engagement is possible, or a nonwoven fabric, are pasted up on the front face of the part pasted up on said liquid permeability surface sheet 2 of the other end of said piece 18 of a release tape by adhesion etc.

[0049] This piece 18 of a release tape is shorter than said piece 17 of a FASUNINGU tape. The end section of the piece 17 of a FASUNINGU tape is projected from the end section of the piece 18 of a release tape. Said engagement member 20 pasted the front face of the part projected from the end section of the piece 18 of a release tape of this piece 17 of a FASUNINGU tape, further, it gathered in the front face of the end section which projects from the part which pasted up the engagement member 20 of this piece 17 of a FASUNINGU tape, and the piece 21 of a sheet has pasted up.

[0050] As shown in drawing 2, the lobe 16 of said zipper tape 15 is turned up to the front-face side of the body 1 of a diaper from the edges-on-both-sides section of the backside waist section 8 of the body 1 of a diaper. And superposition, It is held at the condition that this zipper tape 15 folds the field-like fastener 14 of another side adhered to this zipper tape 15 in the front-face side of the body 1 of a diaper by tacking engaging with the engagement member 20 free [engaging and releasing], and a pile does not project from the edges-on-both-sides section of the backside waist section 8 of the body 1 of a diaper.

[0051] Next, an operation of the gestalt of the 1 above-mentioned implementation is explained.

[0052] When equipping the body with the body 1 of a diaper, as shown in drawing 2, the lobe 16 from the body 1 of a diaper is folded up, the field-like fastener 14 of another side is engaged involving the engagement member 20, and the zipper tape 15 attached in the body 1 of a diaper is being tacking engaged.

[0053] On the occasion of use, the tacking engagement to the field-like fastener 14 of another side and the engagement member 20 is solved, a zipper tape 15 is turned up, and the lobe 16 of a zipper tape 15 is made to project from the both ends of the backside waist section 8, respectively.

[0054] And as the front face by the side of the liquid permeability surface sheet 2 of the body 1 of a diaper is contacted by the skin, while it locates the circumference section 7 of length from the crotch to the cuff of the body 1 of a diaper in length from the crotch to the cuff, the backside waist section 8 is located in a back side, and the venter waist section 9 is further located in a venter. The field-like fastener 14 of another side of the zipper tape 15 which while has fixed in the backside waist section 8 of this body 1 of a diaper, and is attached in it in the backside waist section 9 at the field-like fastener 13 is made engaged respectively free [engaging and releasing], and it equips with it.

[0055] Since the backside waist section 8 of the body 1 of a diaper is fastened by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of a zipper tape 15, and the piece 18 of a release tape pasted up on the liquid permeability surface sheet 2 at this time Association with a zipper tape 15 and the body 1 of a diaper becomes firm. Again A zipper tape 15 folds up the lobe 16 from the body 1 of a diaper for the field-like fastener 14 of another side, and can be engaged and tacking engaged involving the engagement member 20 in the field-like fastener 14 of another side. A zipper tape 15 can tacking do of the field-like fastener 14 of another side certainly also with the quality of the material which cannot be engaged.

[0056] And since it does not engage, damage or deform involving the liquid permeability surface sheet 2 which the field-like fastener 14 of another side established in the zipper tape 15 formed with the nonwoven fabric of the body 1 of a diaper since the zipper tape 15 was folded up and projected from the backside waist section 8 until it equipped the body with the body 1 of a diaper and the zipper tape has not projected from the body 1 of a diaper, appearance nature is not spoiled.

[0057] Moreover, in the production process of a disposable diaper, since the zipper tape 15 is not projected from the both ends of the backside waist section 8 of the body 1 of a diaper, un-arranging on manufacture by the field-like fastener 14 of another side established in the zipper tape 15 involving and engaging with the liquid permeability surface sheet 2 superfluously formed with the nonwoven fabric of the body 1 of a diaper does not arise.

[0058] In addition, although the piece 18 of a release tape of a zipper tape 15 explained the structure pasted up on the liquid permeability surface sheet 2 of the body 1 of a diaper with the gestalt of said operation, the piece 18 of a release tape can also be pasted up on front-face side sheets, such as a hydrophobic sheet, with the structure with which the body 1 of a diaper arranged front-face side sheets, such as a hydrophobic sheet, in the both-sides section of the cross direction of the liquid permeability surface sheet 2.

[0059] Next, the gestalt of other operations is explained based on drawing 4 and drawing 5 .

[0060] In the configuration of the gestalt of operation shown in said drawing 1 thru/or drawing 3 , the lobe 16 of said zipper tape 15 is turned up to the front-face side of the body 1 of a diaper from the edges-on-both-sides section of the backside waist section 8 of the body 1 of a diaper. Superposition, The field-like fastener 14 of another side adhered to this zipper tape 15 by tacking engaging with the engagement member 20 and the liquid permeability surface sheet 2 of the body 1 of a diaper further formed with the nonwoven fabric free [engaging and releasing] This zipper tape 15 is the configuration held at the condition that break into the front-face side of the body 1 of a diaper, and a pile does not project from the edges-on-both-sides section of the backside waist section 8 of the body 1 of a diaper.

[0061] As for the configuration of the gestalt of this operation, the backside waist section 8, the circumference section 7 of length from the crotch to the cuff, and the venter waist section 9 are continuously formed with the liquid permeability surface sheet 2 and the non-liquid-permeable nature rear-face sheet 3 which formed the body 1 of a diaper with the nonwoven fabric which arranged the absorber 4 in between.

[0062] Moreover, it receives in the non-liquid-permeable nature rear-face sheet 3 of the venter waist section 9 of this body 1 of a diaper, and one field-like fastener 13 of a hook form is formed, and the zipper tape 15 which has the lobe 16 which projects from the both-sides edge of this backside waist section 8, respectively is formed in the both-sides edge of the backside waist section 8 of said body 1 of a diaper.

[0063] The field-like fastener 14 of another side of the stop hook form of the shape of a hook which while prepared in the venter waist section 9 of said body 1 of a diaper, and engages with it free [engaging and releasing on the field-like fastener 13] has pasted the front face of the lobe 16 from the body 1 of a diaper of this zipper tape 15.

[0064] Moreover, said zipper tape 15 is formed by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of said body 1 of a diaper, and the piece 18 of a release tape pasted up on said liquid permeability surface sheet 2. While fastening the both-sides edge of the backside waist section 8 of said body 1 of a diaper by this piece 17 of a FASUNINGU tape, and the piece 18 of a release tape, the lobe 16 from the both-sides edge of this backside waist section 8 is pasted up mutually. It is located in the part pasted up on said liquid permeability surface sheet 2 in the front face of the piece 18 of a release tape of said zipper tape 15, and the engagement members 20, such as the field-like fastener 14 of said another side, a field-like fastener of the receptacle hook form in which tacking engagement is possible free [engaging and releasing], or a nonwoven fabric, are pasted up. Where the lobe 16 of said zipper tape 15 is bent and laid on top of a front-face side, tacking engagement of the field-like fastener 14 of said another side to the liquid permeability surface sheet 2 and the engagement member 20 of a nonwoven fabric of said body 1 of a diaper is enabled.

[0065] Furthermore, it gathers in the end section which turns into a point of the field-like fastener 14 of said another side in the front face of the piece 18 of a release tape of said zipper tape 15, and the piece 21 of a sheet is pasted up.

[0066] That is, after the configuration of the gestalt of operation shown in this drawing 4 and drawing 5 bent the lobe 16 of a zipper tape 15 to the front-face side and has piled it up in the configuration shown in said drawing 1 and drawing 2 , the tacking engagement to the liquid permeability surface sheet 2 and the engagement member 20 of a nonwoven fabric of said body 1 of a diaper has been attained in the field-like fastener 14 of another side, and other configurations are the same as the configuration shown in drawing 1 and drawing 2 .

[0067] Next, an operation of the gestalt of this operation is explained.

[0068] Also with the gestalt of this operation, the backside waist section 8 of the body 1 of a diaper is fastened by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of a zipper tape 15, and the piece 18 of a release tape pasted up on the liquid permeability surface sheet 2. Association with a zipper tape 15 and the body 1 of a diaper becomes firm. Again A zipper tape 15 folds up the lobe 16 from the body 1 of a diaper, and the field-like fastener 14 of another side is made as for tacking engagement to the engagement member 20 and the liquid permeability

surface sheet 2 of the nonwoven fabric of the body 1 of a diaper. Since the field-like fastener 14 of this another side involves and engages [tacking] with the engagement member 20 and the liquid permeability surface sheet 2 of the nonwoven fabric of the body 1 of a diaper, it can be certainly held in the condition that a zipper tape 15 does not project from the both-sides edge of the backside waist section 8 of the body 1 of a diaper.

[0069] Other operations of the gestalt of this operation are the same as that of the gestalt of operation shown in said drawing 1 thru/or drawing 3.

[0070] In addition, although the piece 18 of a release tape of a zipper tape 15 explained the structure pasted up on the liquid permeability surface sheet 2 formed with the nonwoven fabric of the body 1 of a diaper with the gestalt of said operation With the structure which arranged the front-face side sheet by which the body 1 of a diaper was formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 with nonwoven fabrics, such as a hydrophobic sheet The piece 18 of a release tape is pasted up on the sheet formed with the nonwoven fabric by the side of front faces, such as a hydrophobic sheet. It can also tacking engage with the nonwoven fabric sheet by the side of the front face of the body 1 of a diaper which formed the field-like fastener 14 of another side adhered to a zipper tape 15 with the engagement member 20 and the nonwoven fabric free [engaging and releasing].

[0071] Next, the manufacture approach of the disposable diaper shown in drawing 1, drawing 2 and drawing 4, and drawing 5 is explained based on drawing 6.

[0072] This manufacture approach attaches the zipper tape 15 of the gestalt of operation shown in the body 1 of a diaper which has the absorber 4 arranged between the liquid permeability surface sheet 2 shown in drawing 3, the non-liquid-permeable nature rear-face sheet 3 and this liquid permeability surface sheet 2, and the non-liquid-permeable nature rear-face sheet 3, and formed the backside waist section 8, the circumference section 7 of length from the crotch to the cuff, and the venter waist section 9 at said drawing 1 and drawing 2, and drawing 4 and drawing 5, and manufactures a disposable diaper.

[0073] (a) of drawing 6 It gathers with the field-like fastener sheet 32 of another side of a hook-like stop hook form, and a sheet 33 is pasted up on the end side of the front face of the shown FASUNINGU tape sheet 31 it is running continuously (process b). The process which pastes up the engagement member sheet 35 on the surface other end side of the release tape sheet 34 it is running continuously is followed. Where the other end side of the release tape sheet 34 on which said engagement member sheet 35 was pasted up is turned up to the front-face side by the side of an end, while pasting up the end section of this release tape sheet 34 on the front face by the side of the end of the FASUNINGU tape sheet 31 on which the field-like fastener sheet 32 of said another side was pasted up The field-like fastener sheet 32 and said engagement member sheet 35 of said another side are tacking engaged (process c).

[0074] Subsequently, the release tape sheet 34 on which the end section of said FASUNINGU tape sheet 31 and this FASUNINGU tape sheet 31 was pasted up mutually is cut by predetermined width of face with the field-like fastener sheet 32 and the engagement member sheet 35 of said another side, and a zipper tape 15 is formed by the piece 17 of a FASUNINGU tape which gathered with the field-like fastener 14 of another side, and pasted up the piece 21 of a sheet, and the piece 18 of a release tape which pasted up the engagement member 20 (process d).

[0075] Furthermore In the both ends of the backside waist section 8 of said body 1 of a diaper which shows a part for the other end of said piece 17 of a FASUNINGU tape to drawing 3 Subsequently to the process pasted up on said non-liquid-permeable nature rear-face sheet 3, where the field-like fastener 14 and the engagement member 20 of another side are tacking engaged, bend the other end side clinch section of said piece 18 of a release tape with the piece 17 of a FASUNINGU tape, and said liquid permeability surface sheet 2 is pasted. The zipper tape 15 with which the lobe 16 from said body 1 of a diaper was folded up by this piece 17 of a FASUNINGU tape and the piece 18 of a release tape is formed (process e).

[0076] in addition, in the disposable diaper of the gestalt of operation shown in said drawing 4 and drawing 5 While pasting said non-liquid-permeable nature rear-face sheet 3 in the both ends of the backside waist section 8 of said body 1 of a diaper which shows a part for the other end of the piece 17

of a FASUNINGU tape to drawing 3 , where the field-like fastener 14 and the engagement member 20 of another side are tacking engaged, the other end side clinch section of said piece 18 of a release tape When it bends and said liquid permeability surface sheet 2 is pasted with the piece 17 of a FASUNINGU tape, the field-like fastener 14 or the engagement member 20 of another side involves and engages [tacking] with the liquid permeability surface sheet 2 of the body 1 of a diaper in the condition of having been tacking engaged.

[0077] Next, an operation of the gestalt of this operation is explained.

[0078] In the both ends of the backside waist section 8 of said body 1 of a diaper which shows a part for the other end of the piece 17 of a FASUNINGU tape to drawing 3 Since the other end side clinch section of the piece 18 of a release tape is bent with the piece 17 of a FASUNINGU tape where the field-like fastener 14 and the engagement member 20 of another side are tacking engaged and said liquid permeability surface sheet 2 is pasted after pasting the non-liquid-permeable nature rear-face sheet 3, as shown in drawing 2 and drawing 5 The field-like fastener 14 of another side coils around the liquid permeability surface sheet 2 formed in the condition of having attached in the body 1 of a diaper, with the engagement member 20, or this engagement member 20 and nonwoven fabric of the piece 18 of a release tape of a zipper tape 15, and a zipper tape 15 is in a tacking integrated state. A zipper tape 15 folds up a lobe 16 on the body 1 of a diaper easily and certainly, and can be pasted up.

[0079] In addition, with the configuration which arranged nonwoven fabric sheets by the side of a front face, such as a hydrophobic sheet formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 of the body 1 of a diaper with the nonwoven fabric, the piece 18 of a release tape of a zipper tape 15 is pasted up on the nonwoven fabric sheet by the side of a front face.

[0080] Next, the gestalt of other operations of the manufacture approach of a disposable diaper is explained based on drawing 6 .

[0081] It is related with manufacture of the disposable diaper which also shows the gestalt of this operation to drawing 1 , drawing 2 and drawing 4 , and drawing 5 , and is (a) of drawing 6 . The field-like fastener sheet 32 of another side of a hook-like stop hook form is pasted up on the surface end side of the shown FASUNINGU tape sheet 31 it is running continuously (process b). Subsequently, the engagement member sheet 35 is tacking engaged with the field-like fastener sheet 32 of another side adhered to said FASUNINGU tape sheet 31 it is running continuously (process f).

[0082] Next, while pasting up the end side of the release tape sheet 34 on the end section of said FASUNINGU tape sheet 31, the engagement member sheet which is tacking engaging with the field-like fastener sheet 32 of said another side is pasted up on the clinch section of this release tape sheet 34 (process g). Furthermore, a zipper tape 15 is formed by the piece 17 of a FASUNINGU tape which cut the release tape sheet 34 on which the end section of said FASUNINGU tape sheet 31 and this FASUNINGU tape sheet 31 was pasted up mutually by predetermined width of face with the field-like fastener sheet 32 and the engagement member sheet 35 of said another side, and pasted up the field-like fastener 14 of another side, and the piece 18 of a release tape which pasted up the engagement member 20 (process d).

[0083] Next, while pasting said non-liquid-permeable nature rear-face sheet 3 in the both ends of the backside waist section 8 of said body 1 of a diaper which shows a part for the other end of said piece 17 of a FASUNINGU tape to drawing 3 Where the field-like fastener 14 and the engagement member 20 of another side are tacking engaged, bend the other end side clinch section of said piece 18 of a release tape with the piece 17 of a FASUNINGU tape, and the liquid permeability surface sheet 2 of said body 1 of a diaper is pasted. The zipper tape 15 with which the lobe 16 from said body 1 of a diaper was folded up by this piece 17 of a FASUNINGU tape and the piece 18 of a release tape is formed (process e).

[0084] An operation of the gestalt of this operation is explained.

[0085] The liquid permeability surface sheet 2 and the field-like fastener 14 of another side which were formed with the engagement member 20, or this engagement member 20 and nonwoven fabric of the piece 18 of a release tape of a zipper tape 15 when attaching in the body 1 of a diaper are involved, and a zipper tape 15 is in a tacking engagement condition, and a zipper tape 15 folds up a lobe 16 on the body 1 of a diaper easily certainly, and it can hold it certainly in the condition that a zipper tape 15 does not

project from the both-sides edge of the backside waist section of the body of a diaper.

[0086] Moreover, since the engagement member sheet 35 which is tacking engaging with the field-like fastener sheet 32 of another side is pasted up on the clinch section of this release tape sheet 34 while pasting up the end side of the release tape sheet 34 on the end section of the FASUNINGU tape sheet 31, adhesion with adhesion and the piece 18 of a release tape of the piece 18 of a release tape of a zipper tape 15 and the piece 17 of a FASUNINGU tape, and the engagement member 20 is made to coincidence, and manufacture becomes easy.

[0087] In addition, with the configuration which arranged nonwoven fabric sheets by the side of a front face, such as a hydrophobic sheet formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 of the body 1 of a diaper with the nonwoven fabric, the piece 18 of a release tape of a zipper tape 15 is pasted up on the nonwoven fabric sheet by the side of a front face.

[0088] It explains that the gestalt of operation of others [diaper / following / disposable] is based on drawing 7 and drawing 8.

[0089] With the gestalt of this operation, the piece 18 of a release tape is formed in the disposable diaper shown in said drawing 1 and drawing 2 in the engagement member which can tacking engage with the field-like fastener 14 of another side.

[0090] As shown in drawing 3, the body 1 of a diaper is continuously formed in the backside waist section 8, the circumference section 7 of length from the crotch to the cuff, and the venter waist section 9 with the liquid permeability surface sheet 2 and the non-liquid-permeable nature rear-face sheet 3 which arranged the absorber 4 in between.

[0091] The field-like fastener 13 which is one side which formed this body 1 of a diaper in the non-liquid-permeable nature rear-face sheet 3 of the venter waist section 9, The zipper tape 15 which has the lobe 16 which is attached in the both-sides edge of the backside waist section 8 of said body 1 of a diaper, respectively, and projects from the both-sides edge of this backside waist section 8, It was prepared in the front face of the lobe 16 from the body 1 of a diaper of this zipper tape 15, and has the field-like fastener 14 of another side which while prepared in the venter waist section 8 of said body 1 of a diaper, and engages with it free [engaging and releasing on the field-like fastener 13].

[0092] Said zipper tape 15 is formed by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of said body 1 of a diaper, and the piece 18 of a release tape pasted up on said liquid permeability surface sheet 2. While fastening the both-sides edge of the backside waist section 8 of said body 1 of a diaper by this piece 17 of a FASUNINGU tape, and the piece 18 of a release tape, the lobe 16 from the both-sides edge of this backside waist section 8 is pasted up mutually. It forms in the engagement member which engages [tacking] the piece 18 of a release tape of this zipper tape 15 with the field-like fastener 14 of said another side where the lobe 16 of said zipper tape 15 is bent and laid on top of a front-face side.

[0093] Other configurations are the same as the configuration shown in drawing 1 and drawing 2.

[0094] Next, an operation of the gestalt of this operation is explained.

[0095] Since the backside waist section 8 of the body 1 of a diaper is fastened by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of the body 1 of a diaper of a zipper tape 15, and the piece 18 of a release tape pasted up on the liquid permeability surface sheet 2 Association with a zipper tape 15 and the body 1 of a diaper becomes firm. Again Since the zipper tape 15 could be tacking engaged involving the piece of a release tape which folded up the lobe 16 from the body 1 of a diaper, and formed the field-like fastener 14 of another side in the engagement member and the piece of a release tape was formed in the engagement member, It is not necessary to paste up an engagement member on the piece 18 of a release tape, and it can tacking engage with the piece 18 of a release tape certainly, and the field-like fastener 14 of another side can be certainly held in the condition that a zipper tape 15 does not project from the both-sides edge of the backside waist section 8 of the body 1 of a diaper.

[0096] Other operations are the same as that of the gestalt of operation shown in said drawing 1 and drawing 2.

[0097] In addition, although the piece 18 of a release tape of a zipper tape 15 explained the structure

pasted up on the liquid permeability surface sheet 2 formed with the nonwoven fabric of the body 1 of a diaper with the gestalt of said operation, the piece 18 of a release tape is pasted up on the sheet formed with the nonwoven fabric by the side of front faces, such as a hydrophobic sheet, with the structure which arranged the front-face side sheet by which the body 1 of a diaper was formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 with nonwoven fabrics, such as a hydrophobic sheet.

[0098] Next, the gestalt of other operations of a disposable diaper is explained based on drawing 9 and drawing 10.

[0099] It enables it to tacking engage the piece 18 of a release tape also with the liquid permeability surface sheet 2 of the nonwoven fabric of the body 1 of a diaper with the gestalt of this operation in the disposable diaper shown in said drawing 7 and drawing 8.

[0100] The backside waist section 8, the circumference section 7 of length from the crotch to the cuff, and the venter waist section 9 are continuously formed with the liquid permeability surface sheet 2 and the non-liquid-permeable nature rear-face sheet 3 with which the body 1 of a diaper arranged the absorber 4 in between as shown in drawing 3.

[0101] The field-like fastener 13 which is one side prepared in the non-liquid-permeable nature rear-face sheet 3 of the venter waist section 9 of this body 1 of a diaper, The zipper tape 15 which has the lobe 16 which is attached in the both-sides edge of the backside waist section 8 of said body 1 of a diaper, respectively, and projects from the both-sides edge of this backside waist section 8, It was prepared in the front face of the lobe 16 from the body 1 of a diaper of this zipper tape 15, and has the field-like fastener 14 of another side which while prepared in the venter waist section 9 of said body 1 of a diaper, and engages with it free [engaging and releasing on the field-like fastener 13].

[0102] And the liquid permeability surface sheet 2 of said body 1 of a diaper is formed with a nonwoven fabric, and said zipper tape 15 is formed by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of said body 1 of a diaper, and the piece 18 of a release tape pasted up on said liquid permeability surface sheet 2.

[0103] Moreover, while fastening the both-sides edge of the backside waist section 8 of said body 1 of a diaper by this piece 17 of a FASUNINGU tape, and the piece 18 of a release tape, the lobe 16 from the both-sides edge of this backside waist section 8 is pasted up mutually.

[0104] And the piece 18 of a release tape of said zipper tape 15 is formed in engagement members, such as a nonwoven fabric which engages [tacking] with the field-like fastener 14 of said another side free [engaging and releasing], and where the lobe 16 of said zipper tape 15 is bent and laid on top of a front-face side, it enables tacking engagement of the field-like fastener 14 of said another side to the liquid permeability surface sheet 2 of the nonwoven fabric of said body 1 of a diaper, and the piece 18 of a release tape of an engagement member.

[0105] And other configurations are the same as the configuration shown in said drawing 1 and drawing 2.

[0106] Next, an operation of the gestalt of this operation is explained.

[0107] Since the backside waist section 8 of the body 1 of a diaper is fastened by the piece 17 of a FASUNINGU tape pasted up on the non-liquid-permeable nature rear-face sheet 3 of a zipper tape 15, and the piece 18 of a release tape pasted up on the liquid permeability surface sheet 2 Association with a zipper tape 15 and the body 1 of a diaper becomes firm. Again A zipper tape 15 can involve and tacking engage with the piece 18 of a release tape and the liquid permeability surface sheet 2 of the nonwoven fabric of the body 1 of a diaper which folded up the lobe 16 from the body 1 of a diaper, and formed the field-like fastener 14 of another side in the engagement member. Since the piece 18 of a release tape was formed in the engagement member, it is not necessary to paste up an engagement member on the piece 18 of a release tape. Since it involves and engages with the piece 18 of a release tape, and the liquid permeability surface sheet 2 of the nonwoven fabric of the body 1 of a diaper, the field-like fastener 14 of another side can be certainly held in the condition that a zipper tape 15 does not project from the both-sides edge of the backside waist section 8 of the body 1 of a diaper.

[0108] Other operations are the same as that of the gestalt of operation shown in said drawing 1 and

drawing 2 .

[0109] In addition, although the piece 18 of a release tape of a zipper tape 15 explained the structure pasted up on the liquid permeability surface sheet 2 formed with the nonwoven fabric of the body 1 of a diaper with the gestalt of said operation, the piece 18 of a release tape is pasted up on the sheet formed with the nonwoven fabric by the side of front faces, such as a hydrophobic sheet, with the structure which arranged the front-face side sheet by which the body 1 of a diaper was formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 with nonwoven fabrics, such as a hydrophobic sheet.

[0110] Next, how to manufacture the disposable diaper of the gestalt of operation shown in drawing 7 , drawing 8 and drawing 9 , and drawing 10 is explained based on drawing 6 .

[0111] Drawing 6 (a) The field-like fastener sheet 32 of another side is pasted up on the surface end side of the FASUNINGU tape sheet 31 it is running continuously so that it may be shown (process b). It ranks second. It continues. Where the other end side of the engagement member sheet 35 which engages [tacking] with the field-like fastener sheet 32 of another side of the stop hook form of the shape of a hook it is running is turned up to the front-face side by the side of an end, the end section of this engagement member sheet 35 the field-like fastener sheet 32 of said another side The other end is tacking engaged with the field-like fastener sheet 32 of said another side while pasting the front face by the side of the end of the pasted-up FASUNINGU tape sheet 31 (process h).

[0112] Subsequently, a fastener tape 15 is formed by the piece 17 of a FASUNINGU tape which cut the engagement member sheet 35 on which the end section of said FASUNINGU tape sheet 31 and this FASUNINGU tape sheet 31 was pasted up mutually by predetermined width of face with the field-like fastener sheet 32 of said another side, and pasted up the field-like fastener 14 of another side, and the piece 18 of a release tape formed in the engagement member (process i).

[0113] A part for the other end of said piece 17 of a FASUNINGU tape with moreover, the process pasted up on said non-liquid-permeable nature rear-face sheet 3 in the both ends of the backside waist section 8 of said body 1 of a diaper Bend the other end side clinch section of said piece 18 of a release tape with the piece 17 of a FASUNINGU tape in the condition of having tacking engaged with the field-like fastener 14 of another side, and said liquid permeability surface sheet 2 is pasted. The zipper tape 15 with which the lobe 16 from said body 1 of a diaper was folded up by this piece 17 of a FASUNINGU tape and the piece 18 of a release tape is formed (process j).

[0114] Other approaches are the same as the approach shown in said drawing 6 .

[0115] An operation of the gestalt of this operation is explained.

[0116] By being attached in the body 1 of a diaper, the field-like fastener 14 of another side is involved in the piece 18 of a release tape of a zipper tape 15, and a zipper tape 15 is in an engagement condition. It will be in the tacking engagement condition that the piece 18 of a release tape and the field-like fastener 14 of another side were involved where a zipper tape 15 is attached in the body 1 of a diaper. A zipper tape 15 folds up a lobe 16 on the body 1 of a diaper easily certainly, and can hold it certainly in the condition that a zipper tape 15 does not project from the both-sides edge of the backside waist section 8 of the body 1 of a diaper.

[0117] Moreover, the process which pastes up an engagement member on the piece 18 of a release tape of a zipper tape 15 is not needed, but manufacture becomes easy.

[0118] In addition, with the configuration which arranged nonwoven fabric sheets by the side of a front face, such as a hydrophobic sheet formed in the both-sides section of the cross direction of the liquid permeability surface sheet 2 of the body 1 of a diaper with the nonwoven fabric, the piece 18 of a release tape of a zipper tape 15 is pasted up on the nonwoven fabric sheet by the side of a front face.

[Translation done.]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The zipper tape of the disposable diaper in which one gestalt of operation of this invention is shown is attached, and it is the explanation sectional view of a part.

[Drawing 2] It is the explanation sectional view showing the condition of having folded up the zipper tape same as the above.

[Drawing 3] It is the expansion top view of a disposable diaper same as the above.

[Drawing 4] The zipper tape of the disposable diaper in which one gestalt of operation of this invention is shown is attached, and it is the explanation sectional view of a part.

[Drawing 5] It is the explanation sectional view showing the condition of having folded up the zipper tape same as the above.

[Drawing 6] It is the explanatory view showing the gestalt of 1 implementation of the manufacture approach of the disposable diaper of this invention.

[Drawing 7] The zipper tape of the disposable diaper in which one gestalt of operation of this invention is shown is attached, and it is the explanation sectional view of a part.

[Drawing 8] It is the explanation sectional view showing the condition of having folded up the zipper tape same as the above.

[Drawing 9] The zipper tape of the disposable diaper in which one gestalt of operation of this invention is shown is attached, and it is the explanation sectional view of a part.

[Drawing 10] It is the explanation sectional view showing the condition of having folded up the zipper tape same as the above.

[Description of Notations]

- 1 Body of Diaper
- 2 Liquid Permeability Surface Sheet
- 3 Non-liquid-permeable Nature Rear-Face Sheet
- 4 Absorber
- 7 Circumference Section of Length from the Crotch to the Cuff
- 8 Backside Waist Section
- 9 Venter Waist Section
- 13 One Field-like Fastener
- 14 Field-like Fastener of Another Side
- 15 Zipper Tape
- 16 Lobe of Zipper Tape 15
- 17 Piece of FASUNINGU Tape
- 18 Piece of Release Tape
- 20 Engagement Member
- 31 FASUNINGU Tape Sheet
- 32 Field-like Fastener Sheet of Another Side
- 34 Release Tape Sheet

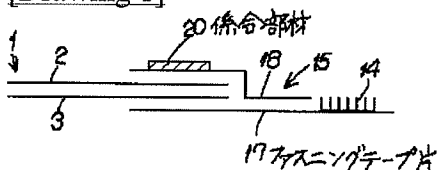
35 Engagement Member Sheet

[Translation done.]

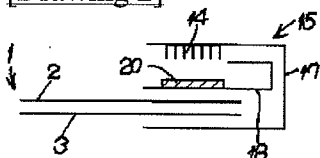
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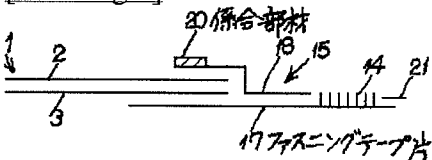
[Drawing 1]



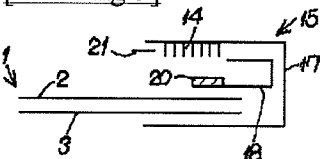
[Drawing 2]



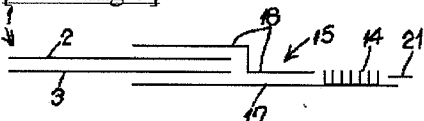
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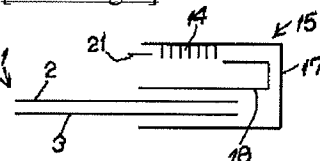
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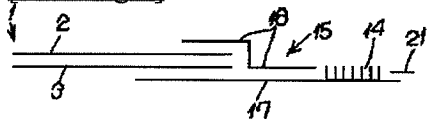
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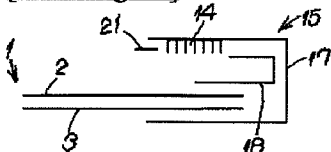
[Drawing 8]



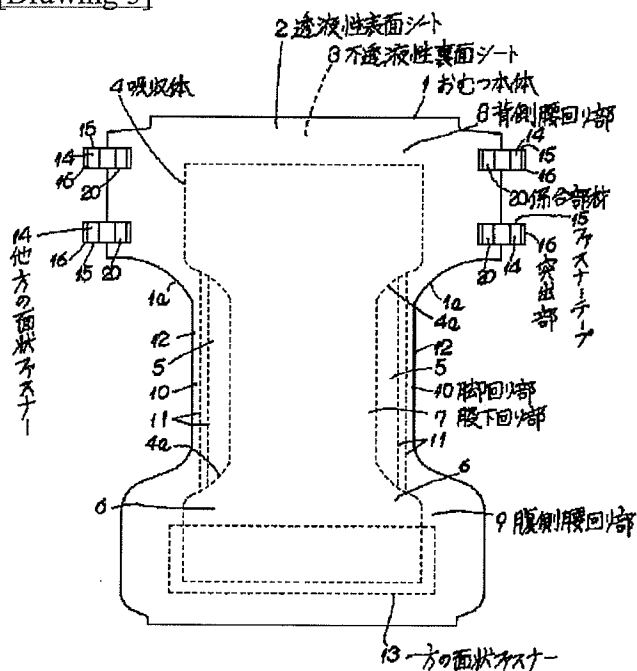
[Drawing 9]



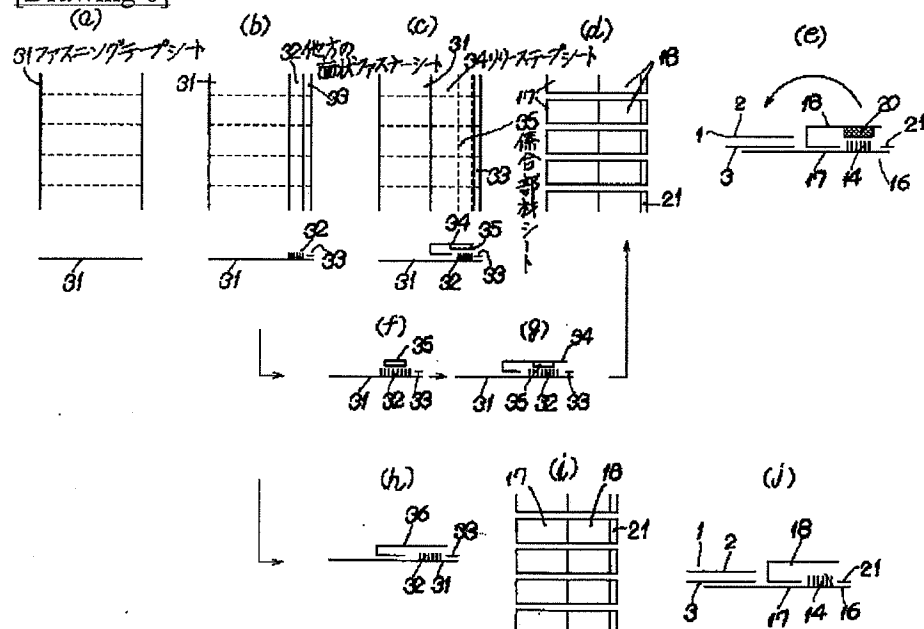
[Drawing 10]



[Drawing 3]



[Drawing 6]



[Translation done.]